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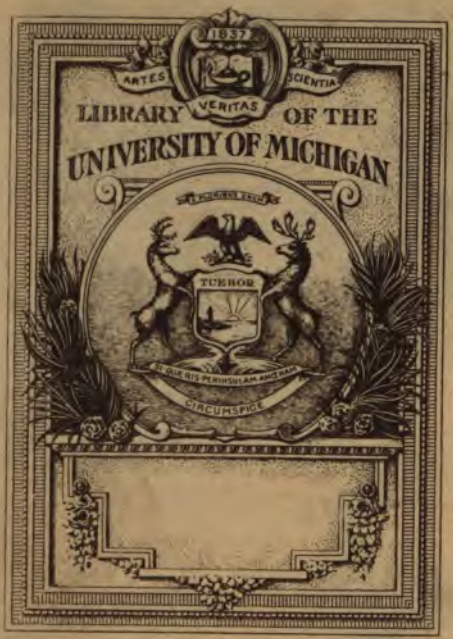

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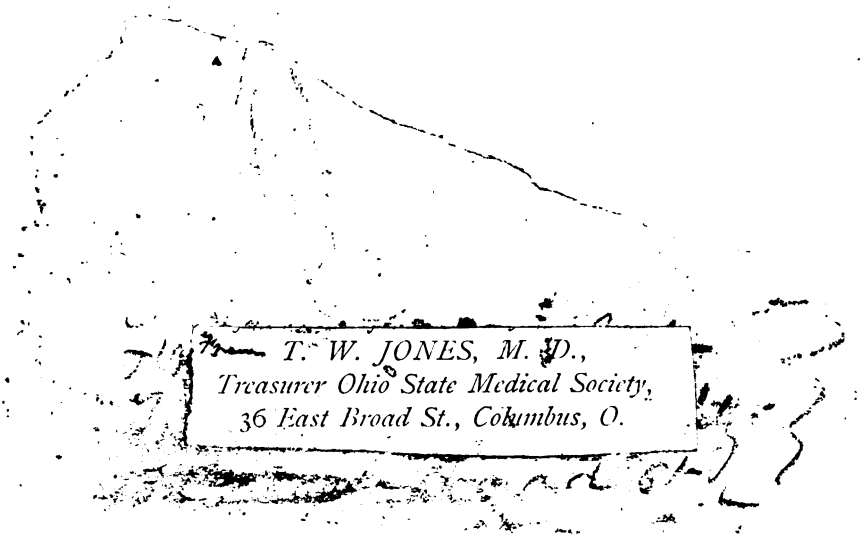
T. W. JONES, M. D.,
Treasurer Ohio State Medical Society,
36 East Broad St., Columbus, O.

TRANSACTIONS

OF THE

THIRTY-THIRD ANNUAL MEETING

OF THE

OHIO STATE MEDICAL SOCIETY.

HELD AT

COLUMBUS,

May 14th, 15th, and 16th, 1878.

COLUMBUS, O.:
COTT & HANN, BOOK PRINTERS,
1878.

MINUTES OF PUBLICATION COMMITTEE.

Pursuant to call of the Chairman, the Committee on Publication met May 25th, 1878, at the office of Dr. Baldwin; the entire Committee being present.

The following bids were opened and read, having been made on a basis of 550 copies of 176 pages each; paper, 50 pounds Eastern book, sized and extra calendered, 25x38; binding, etc., similar to *Transactions* of 1876:

Paul & Thrall, Columbus	$380.00
Comly & Francisco, Columbus	280.00
Helmet office, Piqua	260.00
Nevins & Myers, Columbus	250.00
Gazette office, Columbus	227.25
Cott & Hann, Columbus	230.00

On furnishing 2,000 reprints of the President's address, the bids were as follows:

Helmet office, 20 pages	$50.00
Nevins & Myers, 20 pages	49.00
Gazette office, 24 pages	45.25
Cott & Hann, 24 pages	40.00

As the bid of Messrs. Cott & Hann was, in the aggregate, the lowest, it was, on motion of Dr. Landis, accepted.

Detroit Pub. Lib.
2-26-1926

The Chairman then read from the *Transactions* of 1875, the following *Report*, which defines the duties of the Advisory Committee:

"1st. *Resolved*, That a committee of twelve be appointed by the President, and named the Advisory Committee on Publication, whose duty shall be as hereinafter defined.

"2d. *Resolved*, That the action of the Society, upon matter presented with a view to its publication, be in the form of a motion to simply refer to the Advisory Committee.

"3d. *Resolved*, That it shall be the duty of said Advisory Committee to receive such papers as are referred to it, examine them carefully, and report concerning them to the Committee on Publication, passing such matter only, and in such form as, in the best judgment of the Committee, will contribute to the interest and value of the transactions.

"4th. *Resolved*, That all papers referred to the Advisory Committee shall be placed at once by their authors into the hands of the Chairman of said Committee; and it shall be the duty of the Advisory Committee to report all papers so referred back to the Publication Committee before the adjournment of the Society.

"5th. *Resolved*, That in the event of the failure of the Advisory Committee to report on these papers within the time specified, the Committee on Publication shall then take charge of them, and, in the exercise of its best judgment, publish such of the matter in hand as should appear in the transactions.

"6th. *Resolved*, That the Advisory Committee and Committee on Publication do not allow more than thirty pages of the transactions during any one year for the report or reports of any one member.

"Your Committee, according to instructions, beg to recommend that the Secretaries be instructed to prepare for publication in the transactions, a careful and concise synopsis of the minutes, omitting all discussions, except the gist

of that upon papers read. And they would also report adversely to the employment of an official reporter.

"Respectfully submitted,

"A. T. KEYT,
"W. B. DAVIS,
"E. PIERCE, JR.,
"*Committee.*"

As the Advisory Committee had utterly failed to discharge its duties at the last meeting, thus throwing the entire burden upon the Publication Committee, it was decided, upon motion of Dr. Landis, that all papers should be printed as handed in.

Adjourned.

THOS. C. HOOVER, *Secretary.*

J. F. BALDWIN, *Chairman.*

THIRTY-THIRD ANNUAL MEETING

OF THE

Ohio State Medical Society,

HELD AT

COLUMBUS, MAY 14TH, 15TH, AND 16TH, 1878.

FIRST DAY.

MORNING SESSION.

The Ohio State Medical Society met in its thirty-third annual session, at Columbus, in the City Hall, Tuesday, May 14th, 1878, at 2 o'clock P. M.

The Society was called to order by the retiring President, W. J. Scott, of Cleveland, who, after a few preliminary remarks, introduced Rev. Dr. Lord, of the First Presbyterian Church, who opened the proceedings with prayer.

Dr. Scott then, in a few appropriate words, introduced Dr. W. H. Philips, of Kenton, the President elect.

Dr. Philips, on taking the chair, returned thanks to the members for the honor which they had conferred upon

him, and asked their indulgence in the discharge of his duties.

Dr. C. P. Landon, of Westerville, on behalf of the Executive Committee, delivered the address of welcome. (See body of book.)

Dr. J. B. Thompson, chairman of the Executive Committee, submitted the following report, which was adopted:

REPORT OF THE EXECUTIVE COMMITTEE.

MR. PRESIDENT:

Your Committee beg leave to submit the following report:

Having failed to secure the Representatives' Hall, which we had engaged (believing that the Legislature would adjourn on the 13th, which it has failed to do), we have obtained the use of this, the City Hall, in which to hold your session.

The arrangement which has been made with the various railroads, you will find in a printed circular, which has been furnished to every member by your Secretary, to which you are respectfully referred.

The necessary stationery has been provided for the use of the Society.

ORDER OF BUSINESS.

The meetings for daily sessions shall be at 9 o'clock A. M. and 2 o'clock P. M., and adjourn at the pleasure of the Society.

Your Committee would recommend the same order of business that was adopted at the last session.

The order of business for the daily sessions shall be:

1st. Reading the minutes of the previous session.

2d. Report of Committee on admissions, and election of new members.

3d. Reports from officers on the first day.

4th. Unfinished business that has not been made a special order.

5th. Reports of Standing Committees.

6th. Reports of Special Committees.

7th. Volunteer papers.

8th. Miscellaneous business.

The election of officers shall be made a special order for 2 o'clock P. M. on Wednesday.

The address of the retiring President shall be delivered at 3 o'clock, or immediately after the election of officers.

Arrangements have been made by the profession of the city to give a collation, accompanied by a concert of music, at the Institution for the Blind this evening; the music to be furnished by the inmates of the institution.

On Wednesday evening, there will be a visit and entertainment at the Central Ohio Lunatic Asylum, by invitation of the Board.

Thursday evening has been left open for such private entertainments as may be offered.

Your Committee would respectfully recommend the adoption of the programme of business prepared by your President, and printed in the circular of the Secretary.

All of which is respectfully submitted.

J. B. THOMPSON,
Chairman.

Dr. S. S. Gray, the Treasurer, submitted the following report, which was referred to the Finance Committee:

Amount collected to May 14th, 1878	$610 13
Amount disbursed to May 14th, 1878	518 26
Balance in Treasury	$91 87

The amount due the Society from three hundred and seventy-seven members, whose names have not been dropped from the list as printed in the Transactions of the Ohio State Medical Society for 1877, is $2,228; due from members, as per report of Finance Committee, $36; total amount due Society, $2,264.

Statements of account have been presented to all delinquent members.

The report of the Finance Committee was not furnished the Treasurer, and the Publishing Committee did not incorporate it in the volume of Transactions for last year, and the Treasurer was unable to furnish statements of account to those members reported by the Finance Committee as debtors to the Society.

The amount, $36, is still due the Society as so much money advanced by it to those members.

The Treasurer refers these accounts to the Society for its action and instruction.

All of which is respectfully submitted.

S. S. GRAY,
Treasurer Ohio State Medical Society.

The Finance Committee not being full, Drs. R. E. Jones, of Gomer, H. J. Donahoe, of Sandusky, and Starling Loving, of Columbus, were added to it.

The Report of the Publication Committee was read, and referred to the Finance Committee.

REPORT OF THE COMMITTEE ON PUBLICATION.

CINCINNATI, O., *May 13th*, 1878.

MR. PRESIDENT AND GENTLEMEN OF THE SOCIETY:

Your Committee on Publication beg leave to report as follows:

Previous to receiving bids for the publication of the Transactions, Drs. Davis and Conner severed their con-

nection with the Committee by resignation. The duty of securing the early publication of the Transactions then devolved upon the undersigned, as Chairman, assisted by Drs. Hadlock and Gordon. Dr. Hadlock and myself thought best to ask Dr. Gordon to meet us in committee, which we did, when he informed us by postal that he could not meet with us, but assured us that he would concur with us in any legitimate effort to secure an early publication of the Transactions.

I then solicited bids from four of our leading publishing houses, with the following results:

Robert Clark & Co., 550 copies of 168 pp. for . .	$300,00
Methodist Book Concern, 550 copies of 175 pp .	$266,00
For heavier quality of paper additional . .	$14,00
	$280,00
Wilstack, Baldwin & Co., 550 copies, 75 cts. each	$412,50
Mallory and Webb, 550 copies, 175 pp	$262,00

All matter in addition to 175 pages to be charged for proportionately with the 175 pages.

As the bill of Messrs. Mallory & Webb was the lowest on our list, we concluded to award them the contract. The Transactions, when finished, made a book of 202 pages, instead of 175 as was supposed would be its limit at the time of awarding the contract. The bill presented to me by Messrs. Mallory & Webb was as follows:

For 550 copies Transactions Ohio State Medical Society, 202 pp., $307,95.

By reference to the books of Mallory & Webb, I find the above bill has been paid them by Dr. S. S. Gray, our Treasurer, as follows:

January 29, 1878	$200,00
February 24, "	50,00
March 12, "	40,00
" 28, "	27,95
	$317,95

When Messrs. Mallory & Webb presented their bill, I sent it to Dr. D. D. Bramble, Chairman of Committee on Finance, to be approved by him. There I lost sight of it, and knew nothing more of the account until informed by the publishers that they were getting their pay for the work.

We think the Society should take some action in reference to this matter or question. After the bill has been approved by the Finance Committee and the President, and as many more as is necessary, let it be *returned* to the Chairman of the Publication Committee, that he may draw on the Treasurer for the amount and pay it over to the publishers, taking their receipt in full, that he (the Chairman) can make out his report without being compelled to go to the books of the publisher for facts to make up his report.

Certainly a Committee which can be entrusted with the publication of the Transactions, can be entrusted with the funds to pay for them when completed.

All of which is respectfully submitted.

C. S. MUSCROFT, M. D.,
Chairman,
J. W. HADLOCK, M. D.

On motion of Dr. Landon, Dr. E. B. Stevens, who had formerly removed to New York, was reinstated as a memmer of the Society.

Dr. J. W. Hadlock, the Secretary, submitted his report, which was referred to the Finance Committee.

Dr. Landon was added to the Committee on Admissions, and Drs. E. W. Howard, E. M. Webster, D. Halderman and H. C. Pearce, to the Committee on Medical Societies.

Dr. B. B. Leonard presented his report on Obituaries, which, being incomplete, was referred to the writer, to be handed, when finished, to the Publication Committee.

Dr. A. A. Patterson, of Illinois, being present, was invited to participate in the discussions.

The following Committees not being prepared, their reports were postponed one year:

Medical Library Catalogue.

To Codify Resolutions, Amendments, etc.

Mal-Practice Suits.

Report of Committee on Expert Testimony was deferred until after the President's Address.

The two amendments proposed by Dr. J. F. Baldwin, last year, were laid on the table.

Dr. Starling Loving, of Columbus, presented his report on the Progress of Medicine, which was, after discussion, referred to the Publication Committee.

Adjourned.

SECOND DAY.

MORNING SESSION—9 O'CLOCK, A. M.

President, Dr. W. H. Philips, in the Chair. Secretary being temporarily absent, Dr. W. J. Conklin was elected Secretary *pro tem.* Reading of minutes dispensed with.

The Judicial Council was filled by the appointment of Drs. W. W. Jones, Julian Harmon and R. L. Sweney.

As the acoustic properties of the Hall were such that papers could not be read to advantage, and as the Senate Chamber had been secured for the afternoon session, it was decided, on motion of Dr. T. A. Reamy, that the election of officers proceed at once.

Drs. X. C. Scott and C. P. Landon were appointed tellers.

ELECTION OF OFFICERS.

The election of officers for the ensuing year resulted as follows:

B. B. Leonard, West Liberty, *President.*
J. C. Kennedy, Batavia,
B. F. Hart, Marietta,
J. L. Mounts, Morrow,
T. B. Williams, Delaware, } *Vice-Presidents.*
T. W. Jones, Columbus, *Treasurer and Librarian.*
J. F. Baldwin, Columbus, *Secretary.*
Thomas Waddel, Toledo, *Assistant Secretary.*
E. H. Hyatt, Delaware,
S. S. Thorn, Toledo,
M. C. Cuykendall, Bucyrus,
C. E. Beardsley, Ottawa,
A. C. McLaughlin, Tremont City, } *Com. on Admissions.*

FINANCE COMMITTEE REPORT.

The Finance Committee made a partial report, that the annual dues for the ensuing year had been placed at $2.00.

TREASURER'S SALARY.

Dr. J. B. Thompson's motion, that the compensation of the Treasurer and Librarian be fixed at $200.00 per year, was amended by substituting $50.00, and carried as amended.

TO VISIT INSANE ASYLUM.

An invitation was received from the Board of Trustees of the Columbus Insane Asylum, inviting the members of the Society to visit that institution this afternoon at 3 o'clock; which was, on motion, accepted.

Adjourned, to meet at 1:30 in the Senate Chamber.

AFTERNOON SESSION—SENATE CHAMBER—1:30 P. M.

Society was called to order by the President, who introduced the President elect, Dr. B. B. Leonard. Dr. Leonard responded as follows:

MR. PRESIDENT AND GENTLEMEN OF THE OHIO STATE MEDICAL SOCIETY:

To say that I thank you for the honor you have conferred on me, is a poor expression of my gratitude. To occupy a chair that has been filled by Drs. Philips, Scott, Reamy, Dunlap, Russell, Thompson and Hamilton, and many other distinguished professional gentlemen, some of whom, we humbly trust, have been translated to a brighter world, is an honor not lightly to be esteemed, and one that I will cherish to the latest hours of my life.

We are here to cultivate the medical profession, and although much has been done, much remains to be done. Although the past generation has occupied an elevated position in the scale of medical improvement—although the different branches of our profession have been extensively cultivated and gained a high degree of improvement, yet where can we find a period in which the standard of medical literature has occupied so elevated a position as at the present, when the mighty powers and giant energies of the mind have received so great an amount of attention and cultivation. We rejoice at present victory, and hail with rapture the approach of further conquests.

Physiology, chemistry, materia medica, and the use of the miscroscope and thermometer in diagnosis, are among the innumerable improvements of the present. And when shall discoveries cease, or knowledge attain its climax?

We have seen the favored beginning; the first dawnings our fathers witnessed; who shall behold the consummation? When we shall have finished our work, and shall have been gathered to our fathers, our profession will no doubt witness discoveries far more brilliant than we have conceived, or our imaginations ever framed. We may never see our profession arrive at the acme of its glory and usefulness, but if in the future the same unyielding ambition be nurtured, a few short years will speak volumes for its advancement. Then let us each do his duty, and do it so well and faithfully that when the messenger shall come to us we may say with truth, "Lord, thou deliveredst unto me five talents, behold! I have gained besides them five talents more."

JUDICIAL COUNCIL.

Dr. Ridenour presented the following partial report from the Judicial Council, which was adopted:

PARTIAL REPORT OF JUDICIAL COUNCIL.

WHEREAS, Dr. John G. Senour has presented credentials as a delegate from the Miami County Medical Society, signed by Dr. J. H. Green as Secretary, who has signed his name to a printed recommendation of a quack nostrum for catarrh;

Therefore, your Judicial Council recommend that Dr. Senour be not recognized as a delegate; and that furthermore, the Miami County Medical Society be suspended from its connection as auxiliary to the State Society until such time as it shall have presented satisfactory evidence of its having purged itself from all connection with quackery.

PRESIDENT'S ADDRESS.

President Philips, according to the programme adopted, delivered the Annual Address, Vice-President Reed in the Chair.

REPORT OF COMMITTEE ON EXPERTS.

Immediately after the reading of his Address, the President, as Chairman of the Committee on Compensation of Experts, proceeded to read the report of that Committee. (This report will be found in the body of the Transactions, immediately after the Address.)

VOTE TO PUBLISH.

Dr. W. W. Jones offered the following resolution, which was unanimously adopted:

Resolved, That 1000 extra copies of the President's address, with the report of the Committee on Medical Experts, be printed for distribution to members of the legal profession.

INVITED TO DEAF AND DUMB ASYLUM.

An invitation was received from the officers of that institution, inviting the members to visit the Asylum for the Deaf and Dumb.

Adjourned.

THIRD DAY.

MORNING.

Society called to order at 9 A. M., by President Philips. Reading of minutes dispensed with.

DR. HAMILTON'S REPORT.

Dr. J. W. Hamilton, as per programme, read reports of two cases. 1. Report of Removal of Superior Maxilla and Naso-Pharyngeal Fibroma. 2. Complete Removal of Inferior Maxilla.

On motion of Dr. W. J. Scott, the paper was ordered published and illustrated with such plates as might seem necessary to the author.

DR. REAMY'S REPORT.

Dr. Thad. A. Reamy, of Cincinnati, presented his report as special Committee on Gynecology.

DR. SMITH'S REPORT.

Dr. D. B. Smith, of Cleveland, as Committee on the Progress of Ophthalmology, presented his report.

INSTRUCTIONS TO EXECUTIVE COMMITTEE.

Dr. T. A. Reamy offered the following resolution, which was referred to the Judicial Council:

Resolved, That the Committee of Arrangements for the meeting next year, be and they are hereby instructed that this Society will not accept any invitations to banquets or other means of diversion, or to visit public institutions, which will interfere with the proper business of the meeting.

RESOLUTION OF THANKS.

The following resolution, offered by Dr. W. J. Scott, of Cleveland, was unanimously adopted:

Resolved, That the hearty thanks of this Society are hereby tendered to the Board of Trustees, Mr. Brooks, Mrs. Dr. Gundry, Dr. Firestone, and other officers and attendants of the Central Lunatic Asylum, for the sumptuous collation and otherwise brilliant entertainment given the Society last evening.

REPORT OF COMMITTEE ON PRESIDENT'S ADDRESS.

Dr. X. C. Scott, of Cleveland, Chairman of the Com-

mittee on the President's Address (of Dr. W. J. Scott) presented the following report:

The Committee recommend—

1. That the rule adopted last year, that titles of papers be furnished to the Secretary, with abstract of contents, six weeks before the annual meeting of the Society, and that the Secretary forward a copy of the same to each member four weeks before the meeting, be enforced.

2. That lengthy papers be read only by abstract, and referred to the Advisory Committee for publication.

3. That, whereas we believe that there are too many medical colleges at present in the State, and that the multiplication of schools is detrimental to the cause of reform in medical education; we therefore recommend that a committee be appointed by this Society to confer with the faculties of the different colleges with a view to consolidation into one school where more than one exist in a city.

4. That the Legislature be petitioned to pass a law creating a State Board of Examiners, whose duty it shall be to examine all persons practicing, or intending to practice in the State, who have not been in practice five years, or who have not a diploma from some medical college.

A motion that this report be acted upon section by section having prevailed, the first clause was adopted; the second rejected, after a good deal of discussion; the third adopted, and the fourth laid on the table.

DR. REAMY'S RESOLUTION.

Dr. Reamy offered the following resolution as to the duties of the committee to be appointed according to the third clause of the above report just adopted:

Resolved, That this committee so appointed to confer with the colleges, have power to suggest which shool shall survive where there are more than one in a city.

The resolution was laid on the table.

Adjourned.

AFTERNOON SESSION.

President Philips in the chair.

COMMITTEE ON EXPERTS.

Dr. W. W. Jones offered the following resolution, which was adopted:

Resolved, That for the purpose of carrying out the suggestions contained in the President's address and the report of the Committee on Expert Testimony, there be appointed an Executive Committee of five, of which the retiring President shall be Chairman, whose duty it shall be to appoint sub-committees in the various counties, and procure such action through local societies as will aid them in promoting the object sought to be obtained.

DR. BUCKNER'S PAPER.

Dr. J. H. Buckner, of Cincinnati, presented a volunteer paper, on Throat and Nasal Affections in their Relation to Diseases of the Ear.

REPORT OF THE FINANCE COMMITTEE.

Tne following report of the Finance Committee was presented and adopted:

MR. PRESIDENT:

As the books of the Treasurer are in such a state that your Committee deem it necessary to have the names transferred to a new ledger, we recommend that the Treasurer be instructed to drop off his books the names of all members who have not paid their dues for over seven years; to send notice to all who are not yet seven years in arrears, and to cut off from the list of members in the

Annual Transactions the names of all who are delinquent over three years.

As your Committee have been informed that the resolution on page 23, of Transactions of 1877, referring to the bill of extras made by publishers for changing copy of authors, amounting to $36, has not been complied with, we would recommend that the Treasurer make out bills, and present them to the parties who had such changes made, incurring the above expense, directing payment of the same.

On examination of the Treasurer's receipts and disbursements, we find the following:

June 12th, 1877, cash on hand	$139.63
Received during the year	470.50
Total	$610.13
Disbursements for Transactions and other current expenses	518.26
Balance in treasury May 14th, 1878	$91.87

PLACE OF MEETING.

The Judicial Council reported, nominating Dayton as the place for the next meeting, and the time the first Tuesday in June. Carried.

PAPERS READ BY TITLE.

Dr. C. S. Muscroft, Cincinnati—On the Use of Sulphate of Iron as a Local Remedy.

Dr. J. C. Kennedy, Batavia—Mental Action, Normal and Abnormal.

Dr. G. S. Franklin, Chillicothe—Quinine as an Antiseptic.

Dr. R. L. Sweney, Marion—Chronic Inversion of the Uterus.

BOARD OF HEALTH.

Dr. J. Morris offered the following resolution, which was adopted:

WHEREAS, The medical profession of the great State of Ohio have no reliable or authentic source of information relative to the prevailing diseases within the borders of said State; and,

WHEREAS, Said State has been numerously and repeatedly petitioned through her legislators for a law to establish a bureau or commission of health and sanitary regulations, whereby the tendency to diseases might be obviated and the health and lives of her citizens protected; and,

WHEREAS, She has as repeatedly disregarded said petitions, and turned a deaf ear to the requirements of her suffering and afflicted subjects; therefore, be it

Resolved, 1st. That a committee of one be appointed from each of the counties here represented, whose duty it shall be to report to this Society the nature and tendency of the diseases in his county, with the general treatment and its result.

Resolved, 2d. That a Central Committee of three be also appointed, to be styled the Committee of Health Statistics, to whom shall be referred the reports embraced in the foregoing resolution, whose duty it shall be to revise and consolidate said reports, and cause the same to be published in the Transactions of this Society.

BENEVOLENT INSTITUTIONS.

Dr. S. S. Gray, of Piqua, offered the following resolutions, which were adopted:

Resolved, That the best interests of the Benevolent Institutions of the State require that their management be separated from the varying fortunes of political parties.

Resolved, That we, as a Society, will ever use our influence to secure for these institutions that degree of usefulness which cannot be obtained while their officers depend for their existence upon the uncertain tenure of party success.

DR. REED'S PAPER.

Dr. C. H. Reed, of Toledo, presented a volunteer paper on Quinine as a Prophylactic in Scarlatina.

COMMITTEE ON BENEVOLENT INSTITUTIONS.

Dr. Herrick, of Cleveland, offered the following preamble and resolution, which were adopted:

WHEREAS, This Society, by its vote, has appropriately expressed its deep and abiding interest in our Benevolent State Institutions, that we may more intelligently and effectively act as advisers and supervisors of the same, be it hereby

Resolved, That a Committee of five be appointed, who shall be constituted a Committee of Inspection of these institutions, who thall be required to report to this Society the sanitary condition, efficiency and success of these institutions in meeting the wants for which they were created.

Dr. S. S. Thorn, of Toledo, moved that the salary of the Secretary be $75, and that of the Assistant Secretary $25. Carried.

CONSOLIDATED REPORT OF COMMITTEE ON ADMISSIONS.

During the session, the following named gentlemen were proposed for membership, by the Committee on Admissions, and, on vote, elected:

NAME.	RESIDENCE.	VOUCHORS.
Jesse Snodgrass	Kenton	E. B. Pratt, C. W. Dunlap.
A. T. Speer	Newark	J. W. Hamilton, E. W. Howard
A. H. Bowen	Waterford	T. A. Reamy, S. Loving.
G. W. Helmick	Harrisburg	S. Loving, T. A. Reamy.
J. L. Williams	Cardington	J. W. Hamilton, E. W. Howard
M. J. Hammell	Circleville	J. C. Thompson, E. B. Pratt.
T. B. Asbury	Worthington	C. P. Landon, Z. F. Guerin.
O. Johnson	Worthington	C. P. Landon, Z. F. Guerin.
A. H. Hewetson	St. Clairsville	J. G. McColleaugh, T. C. Hoover.

NAME.	RESIDENCE.	VOUCHORS.
W. A. Scott.....	Swanton	S. P. Bishop, P. E. Jones.
H. A. Tobey.....	Columbus	W. W. Jones, J. W. Hamilton.
W. L. Dorland..	Galion	W. J. Scott, J. Bennitt.
H. G. Landis.....	Columbus.....	....
C. B. Ferrell.....	Columbus.....	C. P. Landon, E. B. Pratt.
A. Boynton....	Milford Centre	N. Gay, L. Woodruff.
J. T. Miles.....	Jersey	D. Halderman, N. Gay.
S. C. Priest.....	Newark.....	J. R. Black, D. D. Bramble.
H. C. Blake.....	Lockbourne.....	G. S. Courtright, J. W. Hamilton.
J. M. Lisle.....	Pataskala	L. Woodruff, D. D. Bramble.
A. H. Brundage	Xenia.....	J. W. Hamilton, J. D. Edwards.
J. C. Kroesen ...	Columbus.....	P. M. Wagenhals, R. Wirth.
H. L. Smith.....	Bloomingbu'h	Thad. A. Reamy, S. Loving.
J. S. Bevington	Berlin	P. P. Pomerine, W. J. Scott.
N. B. Ridgway,	Galion	J. W. Hamilton, M. C. Cuykendall.
C. C. Stouffer ...	West Salen.....	E. W. Howard, W. J. Scott.
J. M. Leslie.....	Frankfort.....	Thad. A. Reamy, J. Helmick.
J. W. McMillen	Mt. Vernon.....	J. W. Russell, F. C. Larimore.
P. Pickard.....	Mt. Vernon.....	J. W. Russell, J. C. Gordon.
Joseph Sharp ...	Sugar Grove ...	G. S. Courtright. E. B. Stevens, G. W. Boerstler.
E. H. Jackson..	Lancaster.....	G. S. Courtright, E. B. Stevens, G. W. Boerstler.
J. G. Nau	Carroll.....	G. S. Courtright, E. B. Stevens, G. W. Boerstler.
B. A. Thomas...	Rushville.....	G. S. Courtright, E. B. Stevens, G. W. Boerstler.
B. D. Granger...	Russell Station	W. W. Shepard, S. J. Spees.
A. C. Belden.....	Akron	E. W. Howard, A. N. Reed.
E. J. Reed	Leipsic.....	C. E. Beardsley, E. B. Pratt.
F. S. Hunter.....	Ashland.....	J. W. Weaver, W. J. Conklin.
H. W. Nelson...	Steubenville ...	A. H. Hewetson, E. Pearce.
S. W. Ranney..	Hope	J. W. Hamilton, J. F. Baldwin.
E. Heyl	Columbus	J. Helmick, N. Gay, J. W. Hamilton.
C. P. Judkins...	Cincinnati.....	D. D. Bramble, E. B. Stevens.
Henry McGrew	Montgomery...	D. D. Bramble, E. B. Stevens.
W. H. Blake.....	Shadeville	D. Halderman, J. W. Hamilton
T. C. Tipton.....	Williamsport..	J. Helmick, E. B Pratt.
E. J. Thorn.....	YellowSprings	A. Dunlap, T. A. Reamy.
G. M. White.....	Columbus.....	D. Halderman, J. W. Hamilton
G. S. Wellons...	Barnesville	J. G. McColleagh, J. F. Baldwin
Toland Jones...	London.....	J. W. Hamilton, T. B. Williams
J. G. Senour....	Troy	S. S. Gray, T. A. Reamy.
W. N. Paige.....	Johnstown.. ...	A. Follett, J. W. Hamilton.
J. Sadler.....	Columbus.....	D. Halderman, J. M. Dunham.
H. S. Green.....	Cardington	R. L. Sweney, Wm. Reed.
L. G. Moore.. ...	Kinsman	Julian Harmon, E. W. Howard.
E. C. Brush.....	Columbus.....	T. A. Reamy, S. Loving.

NAME.	RESIDENCE.	VOUCHORS.
W. B. Hedges...	Beverly.....	B. F. Hart, T. A. Reamy.
B. W. Davis.....	Marion	R. L. Sweney, J. W. Hamilton.
A. C. McNutt...	Bucyrus.....	R. L. Sweney, J. W. Hamilton.
W. D. Otis.....	Pataskala	P. M. Wagenhals, W. J. Scott

DELEGATES.

Licking County Medical Society—Jas. Ewing, A. Follett, A. T. Speer.

Delamater Medical Association—A. N. Reed.

Union Medical Association of North-Eastern Ohio—A. C. Belden.

Academy of Medicine of Cincinnati—R. B. Davy.

Union Medical Association of North-Eastern Ohio—T. S. Hunter, E. W. Howard, C. C. Stouffer.

Pickaway County Medical Society—J. C. Thompson, E. B. Pratt, N. E. Jones.

Highland County Medical Society—W. W. Sheppard, B. D. Granger.

North-Eastern Ohio Medical Association—John Bennitt.

Tuscarawas County Medical Society—Robert Selden.

Hocking Valley Medical Society—G. W. Boerstler, E. H. Jackson.

Cincinnati Academy of Medicine—C. S. Muscroft.

Clermont County Medical Society—J. C. Kennedy.

Erie County Medical Society—J. H. Donahoe.

Jefferson County Medical Society—H. W. Nelson.

Trumbull County Medical Society—M. L. Williams, Allen Jones, L. G. Moore.

Eastern Ohio Medico-Chirurgical Society — A. H. Hewetson.

Columbus Academy of Medicine—J. B. Senseney, H. G. Landis.

Central Ohio Medical Association—W. D. Otis, W. H. Jewett.

Clarke County Medical Society—C. DeRichey, A. C. McLaughlin.

REPORT OF COMMITTEE ON MEDICAL SOCIETIES.

The following Societies were made auxiliary:

Pickaway County Medical Society.
Ashtabula County Medical Society.
Washington County Medical Society.
Morrow County Medical Society.

COMMITTEES.—STANDING AND SPECIAL.

Committee on Admissions.

E. H. Hyatt, Delaware, S. S. Thorn, Toledo,
M. C. Cuykendall, Bucyrus, C. E. Beardsley, Ottawa,
A. C. McLaughlin, Tremont City.

Judicial Council.

E. W. Howard, Akron, Alfred Follet, Granville,
Thos. G. McEbright, Akron, Julian Harmon, Warren,
W. D. Scarf, Bellefontaine, A. Hurd, Findlay,
W. H. Mussey, Cincinnati.

Committee on Finance.

D. D. Bramble, Cincinnati, J. C. Hubbard, Ashtabula,
C. E. Beardsley, Ottawa, E. H. Hyatt, Delaware,
A. J. Miles, Cincinnati.

Committee to Codify Resolutions, Motions, Amendments, Etc.

T. W. Gordon, Georgetown, J. W. Hadlock, Cincinnati,
S. S. Gray, Piqua.

Executive Committee on Expert Testimony.

W. H. Philips, Kenton, J. W. Hamilton, Columbus,
L. Firestone, Columbus, T. A. Reamy, Cincinnati,
W. W. Jones, Toledo.

Committee on Mal-Practice.

J. H. Pooley, Columbus, H. J. Donahoe, Sandusky,
C. B. Ferrell, Columbus.

Executive Committee.

W. J. Conklin, Dayton, J. M. Weaver, Dayton,
T. L. Neal, Dayton, John Davis, Dayton,
E. Jennings, Dayton.

Advisory Committee on Publication.

CINCINNATI.	CLEVELAND.
T. A. Reamy,	John Bennitt,
T. H. Kearney,	W. J. Scott,
D. D. Bramble,	H. J. Herrick.

COLUMBUS.	TOLEDO.
J. H. Pooley,	W. C. Chapman,
J. B. Schueller,	S. S. Thorn,
D. N. Kinsman,	W. W. Jones.

Committee on Medical Societies.

J. B. Hiner, Lima, E. Pearce, Jr., Steubenville,
T. W. Gordon, Georgetown, S. S. Gray, Piqua,
H. S. Conklin, Sidney.

Central Committee of Health Statistics.

J. B. Thompson, Columbus, J. B. Schueller, Columbus,
C. P. Landon, Westerville.

This Committee is authorized to appoint the local Committees, as provided for in Dr. Morris' resolution.

Committee on Obituaries.

P. M. Wagenhals, Columbus.

Committee on Benevolent Institutions.

H. J. Herrick, Cleveland, W. J. Conklin, Dayton,
D. N. Kinsman, Columbus, S. Loving, Columbus,
G. W. Bœrstler, Lancaster.

Committee on Publication.

J. F. Baldwin, Columbus, J. B. Thompson, Columbus.
Wm. H. Drury, Columbus, T. C. Hoover, Columbus,
H. G. Landis, Columbus.

Committee on Consolidation of Medical Colleges.

Roberts Bartholow, Chairman, Cincinnati.
X. C. Scott, Cleveland, Starling Loving, Columbus,
D. D. Bramble, Cincinnati, John A. Murphy, Cincinnati,
G. C. E. Weber, Cleveland, D. N. Kinsman, Columbus,

Special Committees.

T. A. Reamy, Cincinnati, Gynecology.
S. Loving, Columbus, Progress of Medicine.
D. B. Smith, Cleveland, Ophthalmology.
S. F. Forbes, Toledo, Progress of Surgery.
D. D. Bramble, Cincinnati, Treatment and Cure of Syphilis.
W. J. Scott, Cleveland, Drinking Waters of the Cities of Ohio.
J. H. Curry, Toledo, Diseases of the Eye.
D. N. Kinsman, Columbus, Epizootics.
Thos. Waddel, Toledo, Mild Forms of Puerperal Septicemia.

M. C. Cuykendall, Bucyrus, Dysmenorrhea.

Roberts Bartholow, Cincinnati, The Treatment of the Various Forms of Consumption.

H. J. Herrick, Cleveland, Subinvolution of the Uterus.

C. E. Beardsley, Ottawa, Physiological Action and Therapy of Gelsemium Sempervirens.

G. C. E. Weber, Cleveland, Surgical Dressings.

J. H. Buckner, Cincinnati, The Preservation of Good Eye-Sight, and the Use of Spectacles.

DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION.

A. H. Agard, Sandusky; Dudley Allen, Oberlin; S. C. Ayers, Cincinnati; Roberts Bartholow, Cincinnati; J. N. Beach, West Jefferson; W. S. Battles, Shreve; John Bennitt, Cleveland; C. E. Beardsley, Ottawa; J. H. Buckner, Cincinnati; W. J. Conklin, Dayton; H. S. Conklin, Sidney; P. S. Connor, Cincinnati; J. D. Cotton, Portsmouth; M. C. Cuykendall, Bucyrus; J. H. Curry, Toledo; H. Culbertson, Zanesville; W. C. Chapman, Toledo; W. W. Dawson, Cincinnati; A. Dunlap, Springfield; J. F. Forbes, Toledo; R. S. Gilchrist, De Graff; T. W. Gordon, Georgetown; J. W. Hamilton, Columbus; B. F. Hart, Marietta; H. J. Herrick, Cleveland; C. C. Hildreth, Zanesville; J. C. Hubbard, Ashtabula; A. Hurd, Findlay; E. H. Hyatt, Delaware; L. M. Jones, West Liberty; W. W. Jones, Toledo; S. Loving, Columbus; T. C. Minor, Cincinnati; Geo. Mitchell, Mansfield; J. L. Mounts, Morrow; C. S. Muscroft, Cincinnati; W. H. Mussey, Cincinnati; T. L. Neal, Dayton; H. C. Pearce, Urbana; E. Pearce, Jr., Steubenville; W. H. Philips, Kenton; J. H. Pooley, Columbus; T. A. Reamy, Cincinnati; J. C. Reeve, Dayton; W. T. Ridenour, Toledo; J. D. Robinson, Wooster,; J. W. Russell, Mt. Vernon; W. D. Scarff, Bellefontaine; X. C. Scott, Cleveland; W. J. Scott, Cleveland; W. W. Seeley, Cincinnati;

J. B. Thompson, Columbus; S. S. Thorn, Toledo; G. C. E. Weber, Cleveland; J. M. Weaver, Dayton; J. T. Whittaker, Cincinnati; E. Williams, Cincinnati; L. Woodruff, Alton.

DELEGATES TO STATE MEDICAL SOCIETIES.

Michigan.—A. Hurd, Thos. Waddel, S. B. Hiner.

Indiana.—Thad. A. Reamy, J. C. Reeve, D. N. Kinsman.

Kentucky.—S. C. Ayers, J. L. Mounts, J. W. Hadlock.

West Virginia.—B. F. Hart, J. Morris, J. W. Hamilton.

New York.—C. E. Beardsley, R. B. Davy, R. E. Jones.

Society adjourned, to meet at Dayton on the first Tuesday in June (June 3d), 1879, at 2 o'clock P. M.

J. F. BALDWIN, *Secretary.*

THOS. WADDEL, *Assistant Secretary.*

W. H. PHILIPS, *President.*

COMPLETE LIST OF AUXILIARY SOCIETIES.

(Two years ago, the Secretary was instructed to prepare a list of auxiliary societies, but was unable to make the list complete, as he found it impossible to obtain a perfect file of the Transactions. As it seemed very desirable to have such a list, and as I had, through the kindness of Dr. J. B. Thompson, access to the entire series of publications, I have taken the liberty of inserting the list, which I believe to be complete.—J. F. B.)

Academy of Medicine of Cincinnati	1875
Allen County Medical Society	1867
Ashland County Medical Society	1865
Ashtabula County Medical Society	1878
Athens County Medical Society	1866
Athens, Morgan and Washington Medical Ass'n	1855
Belmont County Medical Society	1851
Brown County Academy of Medicine	1877
Brown County Medical Society	1877
*Butler County Medical Society	1852
Central Ohio Medical Society	1869
Champaign County Medical Society	1853
Cincinnati Medical Society	1875
Clarke County Medical Society	1849–1852–1877
Clermont Medical Association	1854
Cleveland Academy of Medicine	1870
Columbus Pathological Society	1877
Delamater Medical Association	1859–1870
Delaware County Medical Society	1869
Delaware Medical Society	1854–1875
Delaware Medical Institute	1872
Drake Medical Society	1854

* Withdrew in 1868.

Erie County Medical Society 1850–1877
Fulton County Medical Society 1870
Greene County Medical Society 1856
Hamilton County Medical Society 1849–1852
Hardin County Medical Society. 1866
Highland County Medical Society 1877
Holmes County Medical Society 1869
Jefferson County Medical Society 1859
Lancaster Medical Institute 1849
Lawrence County Medical Society 1877
Logan County Medical Society 1875–1877
Medico-Chirurgical Society of N. E. Ohio 1876
Medina County Medical Lyceum 1858
Medical Ass. of Adams, Brown and Clermont Cos. . 1850
Meigs County Medical Association 1850
Miami County Medico-Chirurgical Society 1851
Montgomery County Medical Society 1851
Morrow County Medical Society 1878
Mt. Vernon County Medical Society 1863
North-Eastern Ohio Medical Association. 1870
North-Western Ohio Medical Association 1869
Pickaway County Medical Society 1856–1878
Portage County Medical Society 1869
Preble County Medical Society.. 1849
Putnam Medical Society.. 1877
Richland County Medical and Surgical Society . . . 1850
Ross County Medical Society. 1876
Scioto County Medical Society 1868
Seneca Medical Society 1854
Shelby County Medical Society. 1852
Stark County Medical Society 1850–1852
Stillwater Medical Society 1873
Summit County Medical Society 1866
Toledo Medical Association 1857
Trumbull County Medical Society. 1868
Tuscarawas County Medical Society 1851
Union Medical Society of Alliance 1864
Warren County Medical Society 1849
Wayne County Medical Association 1850
Wood County Medical Society 1877

(The following named Medical Societies seem to have been regarded as auxiliary societies, though I am unable to

find any record of their ever having been made such.—J. F. B.:)

Clinton County Medical Society.
Columbus Academy of Medicine.
Cuyahoga County Medical Society.
Darke County Medical Society.
Franklin County Medical Society.
Hocking Valley Medical Society.
Licking County Medical Society.
Mahoning County Medical Society.
Union Medical Association.

BIOGRAPHICAL SKETCH OF THE PRESIDENT.

William H. Philips, of Kenton, Hardin county, son of Major Enoch Philips, of the war of 1812, and grandson of Col. David Philips of the Revolutionary war, was born at Morganzi, Washington county, Pa., August 24th, 1824. He was educated at Muskingum college, Ohio, and studied medicine at Rush Medical College, Chicago, graduating from that institution in March, 1856. He also graduated from Bellevue Hospital Medical College in 1871. He first located at New Rumley, Harrison county, Ohio, in 1849, removed to Amsterdam, Jefferson county, in 1851, and in 1854 settled at Kenton in the general practice of medicine and surgery, in the latter department of his profession having successfully performed many important operations. He is a member of the Hardin County and North-Eastern Ohio Medical Societies. He contributed a paper on "Milk Sickness" to the *Cincinnati Lancet and Observer*, February, 1877, etc., etc.; was delegate to the Ohio Constitutional Convention in 1873; surgeon to the 118th regiment Ohio Volunteers from 1862 to 1864; and has been U. S. Examining pension surgeon since 1865. In March, 1877, he was appointed Surgeon General of Ohio, by Governor Young.

OHIO STATE MEDICAL SOCIETY.

At the Seventeenth Annual Session of the Ohio State Medical Society the following resolution was adopted:

Resolved, That the publication of any address, prize essay, or other paper by this Society is no evidence of its endorsement of the sentiments therein contained.

ADDRESS OF WELCOME

BY

CHAUNCEY P. LANDON, M. D.,

WESTERVILLE, OHIO.

MR. PRESIDENT AND FELLOWS OF THE OHIO STATE MEDICAL SOCIETY:

By the generous courtesy and partiality of my colleagues, a very pleasant duty devolves upon me to-day. I am charged by them to extend to you, gentlemen, a sincere, a cordial, a hearty welcome.

The Profession of the city, and of central Ohio, unite in requiring me to pronounce to you their greetings, and assure you they will delight to make your visit and sojourn pleasant, as well as of "profit and interest," while adding your renewed contributions to science and to public welfare.

It is but coming home, in returning to this beautiful city, nestling in the lap of one of the most salubrious valleys in our own loved Ohio—the greatest commonwealth, in many of the essential elements of real, true greatness, of that galaxy of thirty-eight United Sovereignties. Here centres to all a common interest. Here is your birth-place, and it was here the first altar was reared for your worship. You know her citizens to be a broad-viewed, a liberal, and a patriotic people—devoted to culture, to art, to Science.

You have come, gentlemen, after the toils and the gleanings of the past year, to lay the sheaves and the grain of your annual harvest on the altar of our common good, our common advancement. In the fullness of our hearts we greet you, and bid you "God-speed" in your toils of

science, your works of humanity. No conflict of interest, no rivalry of enterprise, will enter to shadow the pleasure we have in your reception, or mar the harmony of our annual reunion.

There is additional appropriateness in your electing to convene your Association at the State Capital; it is here the people of the State so early placed those noble beneficiaries, which were first breathed into germ-life and fanned into development by your profession. Those monuments of the generosity, humanity and wisdom of the people were your creations, carefully fostered and nourished by the State. They have caused the saddened face to beam with pleasure, the sickened heart to leap with joy, the clouded brain to sparkle with reason. Grand creations! Noble work! With the emotions of the parent, alive to the interest of the offspring, or the guardian to the ward, in your hearts you exclaim: Palsied be that arm whose sacrilegious touch would impair their efficiency or destroy their usefulness.

I am not here to laud mine own profession. Medicine and her votaries require no poor eulogium of mine—no heralding of yours. Their deeds, their charities, their humanities, are known and felt by all. But, gentlemen, you will pardon if I speak with feelings of pride and in affectionate terms of this organization of devotees of science. It has been my love for more than a quarter of a long century, and may I not feel I have some license to judge of the vital forces animating its life and its labor?

With the rapid march of all that appertains to the material progress of the first commonwealth of the greatest Republic of earth, with the reduplication of the sinews of steel from east to west, from lake to river, binding alike together her citizens, and clasping the hands of love and progress in all the currents of her development—diffusing to her sister commonwealths, and to the world, the untold wealth gathered from her luxuriant valleys and delved from her hills, you can point with truth and with pride to existing evidences that your profession has not remained in the back-ground.

Prior to the inception of your organization, the only representative body of the profession of the State, was a State Convention, whose labors were principally directed to *regulate* the practice of Physic and Surgery, and to pro-

tect the public from the scourge of the empyric and the charlatan—the sum-total of the annual transactions of which would not compare favorably with the monthly exhibit of one of your County Associations of to-day. At that period, there was published but one journal of medical science in the State, and that migrated between the cities of the river. In 1850, the State Convention was merged into the State Society, and a new impulse was awakened, a closer unity was cemented, a clearer purpose and a larger life were given and made manifest.

While many of you feel that much more ought to have been done, you also feel that much has been accomplished: the standard of medical education and of professional requirements elevated; prophylactic measures instituted; the progress of disease arrested and mitigated; sanitary labors made efficient; hygienic laws made rational; new remedies discovered; new and more salutary modes of treatment instituted—changing pathological views, as well as preconceived opinions, of injury and repair, Physiology being the great key, unlocking many of the mysteries of the hitherto sealed book; making still richer the volume of humanity, and man happier and stronger for the conflicts of life.

Practical medicine and surgery, that of which the public are the immediate recipients, have received fuller contributions from the fresh didactic and clinical teachings of the schools, and from the well digested and sifted journalistic literature and labors of the Associations, than from any other sources, and much greater in this than in any other period of the history of medicine. All these evidences, written in the sands by the wayside, or blazed amid the forests of our progress, now wrought in living characters on tablets enduring, you, gentlemen, have had to do. As the offspring of this Association, organizations of medical gentlemen throughout the State are doing good work in their respective fields; constituting your local nuclei of intelligence, fraternal feeling and recognition. Still, you delight each year to return to the parent and to pay homage to the fathers who have wrought for us so much, and to compare notes of progress and bind closer the links of fellowship to all.

Man, however gifted or wise, however great his creative genius, however effective in action, in all the world's his-

tory, has never been able to perform well, or advance greatly or rapidly, any labor of life, the results of the action of the intellect and heart, by individual effort alone. He must have some co-operative assistance, some unity of action and purpose, in compliance with the distinctive and visible laws of Nature, as well as the great and mysterious purposes of Deity.

Wisdom dictates, prudence invites, that in the advancement of any great interest, the achievement of any great work, or the accomplishment of *any results*, that are to affect the entire family of man, associative action is demanded and made necessary. This requirement is peculiarly illustrated in the pursuit of medicine. Each laborer is in all his life a pioneer, and it is alone by accumulated experiences, reflecting the light that erreth not, that the discoveries of the one contribute in forming the capital of his fellows. The physician, too, builds for himself a standard of excellence all his own. In the lone pursuance of his daily duties, he becomes an autocrat, and sometimes, it is to be feared, he regards himself an oracle. To remove this conceit, a wholesome friction with his fellows is required, and will do more to establish just views, and rid our mental horizon of the tinsels, webs and myths, than all the cloistered learning of the day alone. Here in our comminglings, we have this wholesome friction, these scientific duellettoes of the intellect, "when thought meets thought, when mind meets mind, when all that's noble, high, or pure in intellect, unites with an enlarged benevolence, and every aim seems upward."

Gentlemen, because the public so often fail to recognize the true character of cultured liberal medicine, is no just cause or reason for the laborers for its advancement to become weary or wanting in faith.

In all the past, as doubtles they will in all the future, ignorance, empyricism, falsehoods and the arts of the charlatan have oft-times taken the place in public estimation that should have been held by intelligent, rational, deductive medicine. But the world is becoming wiser, and by culture alone will the true instead of the false be received. The plane you stand on, all men who have science and humanity at heart can stand on. While you exclude nothing, when found efficient, you lay no claim to specifics; you recognize no "isms," no "pathies;"

you claim all that science can test, or the mind of man can reach, as your prerogatives. He who goes out of your recognition, he who stands out of your fold, stands there to deceive the public and make merchandise of the profession.

Ought we not, gentlemen, to be strong in purpose, brave in action, and in spirit magnanimous? The volume of nature is open to all, and all along life's pathway, strewn upon the luxuriant lap of earth, and deep down in her boundless bosom, are gems—potent agents—charged with the virtues so grateful to the parched tongue, the fevered brow and the aching heart; and the great God of that bountiful Nature bids you go forth and cull the purest, rarest, most potent and efficient of them all.

> **"Though sluggards deem it but a foolish chase,**
> **And marvel men should quit their easy chair,**
> **The weary way, and long, long league to trace,**
> **Oh! there is sweetness in the care and air,**
> **And life that bloated ease can never hope to share."**

Ah! too, a proud consciousness dwelleth within, that when the requirements of mankind make upon you demands, you can strike your burnished steel, emitting the sparkling light that shall gladden the sorrowing heart of the suffering victim of disease.

It is but just, gentlemen, you secure in the courts a proper and equal recognition of your rights, as experts; nor is there any just reason why the secrets of the criminal, given to his attorney, or the sacredness of the confessional, should be less violate than the revelations given you in your intercourse with the afflicted.

You will labor, gentlemen, until you have secured that great need of the State, the establishment of a Board of Health, with a Sanitary and Statistical Bureau. Your labors, your patient and persevering investigations and abservations, will secure the greatest good to man. Science and useful arts come not to man intuitively; nor are they of spontaneous growth. They are not the products of a night, that wither in a day; nor are they the gilded spawn or creations of an hour, that flit from flower to flower for a time, then disappear forever. They are the results of long and toilsome experiences, many times repeated, and many times modified and verified.

But there should be no turning back in this contest. You are invited to further advancement, greater excellence. You have felt quite recently a distinctive and much-needed change. That feeling has permeated every humanitarian emotion, every professional evolvement. Let Ohio lead the van in the advance column of "Medical Reform," "Medical Progress." She has never been found wanting when called upon for great deeds or great men. Her history, emblazoned all along, has been brilliantly illustrated and intensified in the last two decades, in devotion, in heroism.

Demand here of the Preceptor, before receiving a student in his office, the presentation of a certificate from the constituted Board of Examiners, of the required scholastic attainments. Demand, also, of the colleges more thorough culture, greater excellence in the licenciate they would send forth to make man happier and stronger and prolong human life. Make hospital residence, or a year's thorough practical and clinical experience in office and private practice, essential after having passed the examinations required.

Nor should there be any division of labor. Leave preaching to the preacher, and law to the lawyer; for the attempt to become *more* than a doctor will quite surely result in becoming *less*, and, like Dryden's caricature—

> **"A man so various, that he seemed to be,**
> **Not *one*, but *all* mankind's epitome.**
> **Stiff in opinions, always in the wrong,**
> **Was everything by starts, and nothing long,**
> **But, in the space of one revolving moon,**
> **Was gamester, chemist, fiddler, and buffoon."**

Fellows: This mutual love of ours has for long, toilsome years been to us a binding link, and to her shrine we love to pay our homage, our devotion, our adoration. A long way back in the history of medicine in the West, a few brave and earnest souls laid the foundation, and reared the first column, of this structure. Three years in the past, when you met, you numbered in your membership but a triumvirate of the founders of this Institution—a Kirtland, a Hills and a Thompson. To-day a Hills and the venerable, yet vigorous Thompson, stand the lone sentinels in your midst, like the aged oaks in the once cleared field

surrounded by a healthy growth of young scions. How few of the leading spirits remain, conspicuous in that period of travail and transition stage, until the charter of '48 was secured? Their faces so familiar, and voices so earnest in succeeding years, have been hushed by death, or made less active because of the impress of time. Yet a Russel, a Gay, a Murphy, a Mussey, a Hamilton, and the able and eloquent Wright remain, typical of that early period. Not Romans, but greater than they! Noble Americans, all!

Rejoicing with you, gentlemen, because of the triumphs of the past, we trust you will not be found wanting for the conflicts surely to come in the future—Ah! the vigils will cease only when the twilight of life, earthly, shall have merged into that brighter light of life eternal! The voice of the lowly, and the wail of agony will appeal, reaching you upon your going out and upon your coming in, wafted by every breeze in accents of piteous pathos, breathing an earnest that the God of all power, of all motion, will strengthen you and guide you in the performance of the duties, toils and responsibilities resting upon you, in truly filling the mission of your Art of Arts, your calling of callings—that each as exemplification of your lives may write:

> **"High on a scroll, inscribed on Nature's shrine,**
> **Live in bright characters the words divine,**
> **In all life's changing scenes, to others do,**
> **What you would wish by others done to you.**
> **Winds wide o'er earth this sacred law convey,**
> **Ye Nations, hear it, and let all obey!"**

Again, Mr. President and Fellows, we bid you in the fullness of the utterance of that word, which, when springing from warm hearts and earnest souls, is in its expression a volume, and contains what we would pronounce and convey to you to day—WELCOME!

THE TESTIMONY

—OF—

MEDICAL EXPERTS.

ANNUAL ADDRESS

OF THE

RETIRING PRESIDENT,

W. H. PHILIPS, KENTON.

THE TESTIMONY

—OF—

MEDICAL EXPERTS.

ANNUAL ADDRESS OF THE RETIRING PRESIDENT,

W. H. PHILIPS, KENTON.

It will be remembered that at the last session of this Society, the subject of Medical Experts was referred to a special committee, of which I was made the responsible head. It has seemed to me not inappropriate to introduce this subject upon the present occasion, discussing it in its relation to the people generally, and to the medical profession in particular.

If we look to the origin of government, it will be found that the family preceded it, under the leadership of a patriarch or chief. The interests of families came into conflict, and it became necessary for those whose interests were similar to combine for purposes of defense. To prevent anarchy, those thus uniting were compelled to form a national body, upon which such powers were conferred as tended to give security to the interests of all. In necesity government thus had its origin, the object of its formation being to give security to the individual and to everything that is dear to him. Differences have arisen among men as to the best means of obtaining this security; and from these differences have sprung the various forms of government. But whatever form may approximate nearest to

perfection, certain it is, that the security, which the individual has, is directly proportionate to the fact, whether his government is good or bad. The whole is made up of parts. As are the parts so is the whole. Government consists of various departments. According as these departments are managed, the whole is managed; and according as the whole is managed, the security which the citizen has is good or bad.

It is the department of Justice with which we now have to deal, considering it merely with reference to those cases, wherein, for the proper investigation of truth, it is necessary to call in the testimony of medical experts. No other department comes so near home to the citizen as this. A few see the workings of the other departments, but the great majority are totally unacquainted with them except by hearsay. Their workings affect the people as a whole, and not as individuals. They seem far off, and their effects, though powerful, are mostly indirect and not easily described in their action. With the courts it is different. There is not a citizen in the land who does not come in contact with their operations. It is here that he is punished, that his wrongs are redressed, and his rights obtained. He is affected as an individual. He sees and hears for himself the causes by which effects are wrought upon his life, his liberty, his property, or his reputation. The fact need scarcely be pointed out that where such important interests are at stake, the instrumentalities employed in securing justice should be as perfect as possible. The great progress which has been made in the last century in judicial science abundantly attests the general appreciation of this fact by the English and American people. The matter of medical expert testimony furnishes, however, an exception. In this a conservatism has been displayed which evinces either a marvelous confidence in the infallible wisdom of their ancestors who founded the present methods of procedure, or a neglect utterly at variance with the radical and reformatory ideas of the nation.

Let us glance for a moment at the origin of our coroner and expert system. The office of the former is very ancient, having been instituted long before Medical Jurisprudence was known in England. He was originally of high rank, served without compensation, and was appointed for life. In the 16th century, when Medical Jurisprudence

first came to be taught in England, the character of the office had changed: fees were paid, and all classes of society were made eligible, the occupants were corrupt, and justice was neglected. Medical Jurisprudence itself was in a very crude state. Barbers and surgeons performed the same duties; physicians were prophets, astrologers and sorcerers; the superstition of the age forbade medico-legal antopsies; almost complete ignorance existed of either morbid or normal anatomy; chemical mysteries remained uninvestigated; the standard works of the time contain chapters on Ghosts, Torture, Witchcraft, Miracles, Sorcery, Prophecy, Demonology and the like; experts testified learnedly as to the bleeding caused by the murderer approaching the body of his victim, while Judges, like Sir Matthew Hale, declared that 'there were such creatures as witches he made no doubt at all; for first the Scriptures had affirmed so much; secondly, the wisdom of all nations had provided laws against such persons, which is an argument of their belief in such a crime.' In this case the jury found the defendants guilty, and on the judge's sentence they were executed. Asylums for the insane were unknown. They were regarded as brutes devoid of all sensibility; were farmed out as slaves, and chained like beasts in stables and pens.

Laws, it would seem, were scarcely needed to apply such principles as these in judicial investigations. Still such a system of laws did exist, the same which we inherited from our English ancestors, and have preserved unchanged even to the present day. But whilst the laws applying to it have remained stationary, medical jurisprudence, being a progressive science, has gone steadily forward, until now, in hundreds and hundreds of the cases that arise, our courts are powerless to do justice without an intelligent application of its principles. Scientific research has lifted the vail of ignorance and superstition which so long obscured it. Witchcraft and sorcery are things of the past. The mysteries of chemistry have been revealed, and from its rich stores contributions have been made to almost every science. Anatomy has been developed in all its branches. Medico-legal antopsies have come to be recognized as essential to justice. The diagnostics of diseases have been noted and recorded. By the aid of the stethoscope, thermometer and microscope, the problems of life

and death stand almost solved. The insane have ceased to be regarded as "children of the evil one," and are now the wards of the State, while comfortable houses have replaced the barns and pens in which they were once kept, and mercy and sympathy now stand in the place formerly occupied by brutality and contempt.

There arise annually in the United States not less than twenty thousand civil and criminal cases in which it is necessary to apply the principles of this science. Medical experts are called to testify as to the causes of disease, the effects of wounds, the state of a person's mind, the effects and symptoms of poisons, the results to be apprehended from a particular treatment, the likelihood of death occurring from certain causes, as to marks, burns, strains, signs, appearances, as to the determination of real or apparent death, as to questions of a sexual bearing, as to identity, age, legitimacy, survivorship, punishment, and questions of a like nature. These cases generally involve the most important interests in life. As a learned jurist has observed:

"Life, fortune, reputation, friendship and happiness may depend upon the testimony of the medical expert. How responsible the position where interests of such vast importance to the parties and to society hang upon a single word that may fall from the lips of fallible man. With what care should the witness measure his words and adjust his language, so that the jury will not misunderstand him, or be misled by an unguarded expression. The position is responsible indeed, and should drive the ignorant pretender to medical knowledge to call upon the rocks and mountains to hide his shame and cover him up forever from the sight of his Maker and the eyes of his fellow mortals."

The magnitude of the matters at stake shows the necessity of having highly intelligent and skilled experts to investigate these questions properly. In so far as the protection of the citizen in his rights is a matter of State concern, provisions for securing competent experts in these cases are also of State concern. Not one of our States has recognized this fact. On the contrary, they have utterly neglected to adopt a code of laws which would secure a rational application of medical science to judicial injuries. Supply follows demand. It is the duty of the State to

furnish a demand for competent experts. This has not been done, and hence the reason why medical jurisprudence has been so much neglected in our medical schools.

It is no easy matter to determine who are experts in a given case, and who are not. Perhaps the best rule yet laid down for making this determination is that of Wharton: "The non-expert testifies as to conclusions which may be verified by the adjudicating tribunal; the expert to conclusions which cannot be verified. The non-expert gives the result of a process of reasoning familiar to every day life; the expert gives the results of a process of reasoning which can be mastered only by special scientists." But who, under our law, is to decide whether the process of reasoning, required in a given case, is "familiar to every day life," or can be "mastered only by special scientists?" The coroner or judge must decide. They may be men of intelligence and education, but not in one case out of a hundred have they that special knowledge of medical, surgical and psychological science which is needed in order to a proper performance of this duty. Notwithstanding, the law entrusts to them the examination of the expert's competency and the formation of a judgment thereon. But how in the nature of things can this be done? All judgments are based on relations. The judgment as to the expert's competency must be founded on the relation between the special knowledge of the expert and the special knowledge of the coroner or judge. If the coroner or judge has no such knowledge, he can form no correct judgment as to the expert's competency. Hence the custom which has grown up of admitting any one to testify as an expert who will certify as to his own special knowledge, without any attempt being made to discover in what that special knowledge consists.

A quack and a physician may be called to testify as experts. The quack, equipped with brazen impudence and ever ready to advertise his acquaintance, not only with the special subject whose principles it is desired to apply, but with all other subjects, lays down, *ex-cathedra*, as it were, certain fictitious principles as true; and as neither coroner nor judge knows anything to the contrary, he receives all the credit due to the competent medical expert. The physician, on the other hand, painfully aware of the absurd confusion of the office of expert with the office of physi-

cian, knowing the immense scope of medical science, and the utter impracticability of one man acquiring specials kill in all its branches, assured that his training as a physician has not fitted him to do justice, as a competent expert, in medical jurisprudence, either to himself or to the parties concerned in the case, perhaps hesitates, is uncertain, or frankly confesses his ignorance. As neither coroner, judge nor jury are able to determine the cause thereof, they are apt, generally, to judge him incompetent, and to give his testimony little or no weight. Thus, under present legal rules, is quackery exalted, justice trifled with, and the reputation of the highest physician injured. One result of leaving the choice of competent experts with those who are incompetent to distinguish between experts and non-experts, has been the establishment of the legal and popular presumption that every physician is, by virtue of his profession, a medico-legist, and therefore competent to testify as an expert in regard to all the special branches of medical jurisprudence. The same presumption attaches to all kinds of experts. Thus in New Jersey, a physician, not an oculist, has been admitted to testify as to diseases of the eye; in North Carolina, physicians, not veterinary surgeons, as to diseases of mules; in New York and Alabama, other persons, not veterinary surgeons, as to diseases of animals; in New York, a physician, not a chemist, as to whether certain stains are apparently blood; in California and Iowa, a witness, not a chemist, as to the effects of a powder in removing ink spots; in Louisiana, a person, not a surgeon, to prove that a death was caused by wounds; in Alabama, a witness, who had frequently drank fermented liquors, and is able to distinguish them by their taste, although not having any special knowledge of chemistry, as to whether a certain liquor which he has tasted is or is not fermented.

Properly speaking, medico-legists only are medical experts. A man may be the leading physician of his State, and yet not be competent for such an office. It requires a special training, which the State, as the guardian of the people and the dispenser of justice, should provide. This duty she neglects to fulfill, employing in its stead the presumption referred to. Hence it is that reproaches have often been unjustly heaped upon the medical profession; because they did not do as no reasonable man could expect

them to do. Hence it is that the testimony of experts has fallen into disrepute, because the law provides no means of winnowing the chaff from the grain.

This confusion between the office of expert and physician has long been to the profession a matter of annoyance and chagrin. But this feeling approaches one of outrage when we consider how often physicians are forced to attend court to the utter neglect of their business, and for no further compensation than the pitiful pittance paid as a fee to the ordinary witness. The justice of this practice has always been denied. In three cases out of four, where its legality has been tested, courts of higher resort have held that the State, as well as the individual, must pay the physician a full equivalent for his scientific opinions. "*Salus populi, suprema lex,*" was the governmental maxim of the Romans. It is equally applicable to us, in that the safety of the people being the primary object of government, all laws should tend to secure that end. The supreme law of our State declares that private property shall ever remain inviolate, subject to the right inherent in every sovereignty to appropriate such property to public uses, upon just and adequate compensation. In many cases, private rights must be sacrificed to the public weal. A private inconvenience must be endured, rather than a public mischief. If the public good demand it, the services, property, or even life of the citizen may be employed for its protection. But closely attendant upon this governmental right, is the reciprocal duty of making full compensation to the citizen whose interests have been affected. It is a duty enjoined by our constitution; it is founded in natural equity; it is laid down by jurists as a principle of universal law. Property is varied in its character. It may be corporeal or incorporeal, tangible or intangible. It may exist in the form of land, in a right or privilege, in the ideas found in a book, or flitting along the electric wire, or in a peculiar knowledge or skill. A son inherits a sum of money. He may become a money lender, and convert his money into evidences of debt. These are his property. He may invest his money in real estate. This is his property. He may employ it in educating his brains. The peculiar skill or knowledge arising from that education is just as much his property as the land or notes. The law recognizes this fact in the case of lawyers, referees,

master commissioners, and the like. An attorney is assigned to defend a criminal, and receives proper compensation therefor. So with the referee and commissioner; they receive value for their special services.

The relation of the medical expert to the court is exactly analogous. Yet, with one exception, there is not a statute, decision, or legal custom in force in our State under which he receives any more for his services than does the ordinary witness. The one exception referred to is a statute passed in 1861, providing compensation to physicians and surgeons for making post-mortem examinations, and which, owing to the manner in which this compensation is to be computed, is a standing insult to the dignity of the medical profession. Under this enactment, the coroner or other officer, at whose motion the examination is made, is obliged to keep account of the time during which the physician is at work, and the nature of the operation performed. Upon his report of these facts, the court determines the amount of compensation. In other words, the value of the expert's services are to be judged of by one who is generally totally unfitted by education to form any judgment thereon; and he is to be paid like the day-laborer, according to the time employed.

A distinction has been made between "ordinary" and "skilled" witnesses. Persons testifying as to the facts come under the first head; medical experts and experts generally under the second. When called on to testify as an ordinary witness, the physician admits it his duty to testify in the same manner, and for the same compensation, as any other citizen. But when called on to give his professional opinions, he denies the applicability of the word *witness* to him at all. It is a word in whose meaning is implied a personal attendance upon, a direct cognizance of the facts. The medical expert has had neither. He stands like the attorney or referee, a *pro tem.* officer of the court. His relation is that of an adviser, an arbitrator, or assistant. His opinions are intended as simple advice, to influence the judgment of the court. But whatever be his relation to the judge, certain it is that his special knowledge is his stock in trade, the product of his labor, the capital upon which he speculates, the source from which he draws his livelihood. Like all capital, however, in order to be profitable it must be kept in constant use, and at the

proper place. If the physician is carried away from his business and kept in attendance upon the courts, this constant use is stopped, his special knowledge is taken from the place where it might have been profitably used, and he is injured according to the value of that use during the time he has been deprived of it. Our constitution says that the citizen shall not be thus deprived of his property without adequate compensation; and there is but little reason to doubt but that, if a test case arise, our Supreme Court would hold, as that of Indiana has just done, that the special knowledge of the physician is his property, and the State must pay for it or leave it alone.

Leaving these two topics, the method of determining who are experts, and the amount of compensation, let us look at other branches of the subject. Medical experts are often called to assist at inquests. To assist whom? The coroner,—a man who ought properly to be a person of intelligence, thoroughly versed in medical jurisprudence, and elected, or better, appointed for life, in order to become acquainted with his duties and relieved of political influences. But who is he in fact? With rare exceptions, a man without medical, legal, in many instances without literary, education; owing his office to political favor, and subject to its influences; his compensation small; unacquainted with the duties; in every way unfit for his important office. As Dr. Beck has expressed it, in his work on Medical Jurisprudence: "The duties of his office are imperfectly understood, and often most negligently performed. * * * The individuals appointed are often unfit for the situation, both from habit and education."

These are the men, who, under the Anglo-American mode of practice, determine who are experts, to whom physicians often have the pleasure of standing in the relation of assistants; by whom their opinions are weighed, accepted or rejected; and who gather together the important facts in the case, upon which to form a basis for the opinions of experts in the higher courts. Inasmuch as an ignorant or incompetent man is apt to look for assistants among his own kind, nothing but accident will generally prevent an inquest from being presided over by an incompetent coroner, aided by a corps of incompetent assistants. Accurate medico-legal autopsies are essential to justice in

many cases. There are many signs, marks, and circumstances connected with a dead body, or the scene of an affray or other crime, which in themselves are sufficient to identify the criminal, or to designate the cause of various effects. These evidences may be very delicate, and an experienced eye required to observe them. In a short time they disappear, and the means of detection are lost forever. Elwell, in his work on Malpractice and Medical Evidence, observes on this point, that "when the coroner does not detect the perpetrator of a homicide, in most cases he is not detected at all. When a crime has just occurred, there is more interest felt and wakefulness exercised than afterward. The body of the deceased is fresh; the opportunities of scientific examination are usually perfect, much more so than after disorganization has destroyed the structure of the body. Those who saw the victim last and the circumstances surrounding him are present. The witnesses have not yet been tampered with. * * * If the guilty party is followed up immediately, with sharp, quick strokes, the chances of arriving at the truth are greatly increased."

These facts show the significance of the coroner's inquest. Furthermore, they show the necessity of a change in the present system which will relieve it of its deformities; which will place in charge of these investigations men who are competent to make them, to select proper assistants when needed, and to testify to the facts if the case is carried into the courts.

The method of applying expert testimony in civil and criminal trials is no better than at the inquest. Nominally the judge is to determine who are experts. But the same difficulty meets us as in the case of the coroner. Skilled in the law they may be; but judges are not necessarily, or even commonly, acquainted with the principles of Medical Jurisprudence. In consequence, what is known as the "voluntary system" of experts has grown up. The parties are allowed to summon whom they please to testify in their favor. Neither party summons a witness whose testimony he is not certain will aid his side of the case. The experts found in our courts are therefore men of pre-ascertained views, brought into court because they are advocates of some particular theory which is needed to sustain the complaint or defense. Hence it is that in al-

most all our criminal trials experts are found swearing positively and directly contrary to one another. In the Stokes-Fisk case, for example, experts were equally in opinion as to whether the deceased died from the effects of the wounds, or the manner in which the ball was extracted. In the Wharton-Ketchum case, experts swore positively as to the presence of poison in sufficient quantity to produce death; whilst others were equally certain that there was not a trace or symptom of poisoning.

A striking illustration of the Ciceronian maxim, that "there is no theory so absurd but that some expert may be found to maintain it," was exhibited in the Superior Court of New York in 1872. The case involved the right to use a bull's head as a trade-mark upon boxes of mustard. One of the most eminent chemists in the city, on being called as an expert, testified that, by personal experiment, he knew that mustard contained eleven per cent. of starch. Professor Chandler of Columbia College, on being called by the opposite party to rebut this evidence, denied that mustard contained any starch at all. The case then went to the jury. The expert first called was not satisfied however, and he applied to the presiding judge for permission to make his experiments in the presence of the court. Leave was granted. The mustard was ground in a. mortar, placed in distilled water and heated over a lamp. The solution was then poured on filtering paper, the chemical test for starch was applied, and the result was a deep blue coloring, which seemed to demonstrate, without question, the presence of a considerable amount. Professor Chandler, on being recalled, expressed dissatisfaction over the first experiment. At his suggestion the chemical test was applied to a sheet of paper entirely free from the solution of mustard. The same blue color characteristic of starch was again exhibited; thus showing that the starch was not in the mustard, but in the paper upon which the experiment was performed.

In addition to the serious conflict of authority, always sure to arise, wealth and self-interest are also significant factors in this system. If experts, with views which will sustain the peculiar theory set forth in a party's complaint or answer, are not to be found in the vicinage, wealth, with its long-reaching arms, can send for them where they

are to be found ; whilst poverty, in its weakness, is obliged to rely for assistance upon incompetence or chance.

Life and liberty are the dearest of man's possessions. In the case of the criminal it is these that are at stake. His property, his own best exertions, the influence of friends, all stand ready to aid him in securing means of defense. Hence it is that eminent experts so often appear for the defense in criminal trials. Notwithstanding these experts stand alone in the advocacy of some extravagant idea, they are often able to impose this idea upon the court as the expression of sound scientific opinion. The prosecution does not feel the impetus that moves the defense. He often neglects to provide competent experts to use in rebuttal. Sometimes he is surprised. But the law itself impedes him still more. A rigid cross-examination of the empyric as to the opinions of other men, known to be true scientists, might expose the imposition ; this the law forbids. The opinions of competent experts might be taken by deposition ; this the law does not allow. Finally, even if the prosecution do send for competent experts, the law furnishes no means with which to make proper compensation for services and expenses.

It will be noted that these *bizarre* theorists, called to sustain some unique principle of defense, are not only now chosen on account of their pre-ascertained views, but they are also paid by the party calling them to advocate these views. Your attention has already been called to the relation which medical experts bear to the court. They are witnesses in no proper sense, but are in truth medico-legal advisors, whose office is to aid the court in determining what particular scientific principles are law in a given case. Then, if it be bribery to pay a judge to decide that certain false principles are law, how much less is it bribery to pay them for their services whose duty it is to assist the court in forming that decision !

It is a legal principle that opinions of experts must be founded on science, and that mere theories are inadmissible in evidence. Upon the judge rests the duty of harmonizing the opposing views of experts, of weighing their testimony, of rejecting speculative theories, and of informing the jury of the scientific principles which they shall recognize in making up their verdict. But how can our judges properly perform this duty, without special training in

medical jurisprudence? He who would produce harmony must know what harmony is. In order to harmonize the opinions of medical experts, he must himself be a medical expert. In order to weigh their opinions, he must have a standard in his own brain by which to estimate this weight. Not one judge in a hundred has this knowledge, this standard, by which to judge the opinions of others upon a special science. The science of medical jurisprudence is progressive, not exact. What was regarded as theory yesterday, is regarded as science to-day. What is science in the judgment of some, is theory in the judgment of others. The judge who declares what is theory, declares what is not science. He who knows what is not science, must know what science is. Judges, however, do not possess this knowledge. They are not medical scientists. Hence the gross absurdity of entrusting them with the duty of weighing medical opinions, and of determining real from speculative science.

Under a practice like this, whereby such advantages are enjoyed by wealth, whereby no provision is made to obtain the true sense of the great body of experts, whereby experts hired by the parties are allowed to advise the court as to the opinion which should be formed—no two cases can arise, however similar in fact and circumstance, in which the same principle of medical jurisprudence will be applied to each case. The determination of this principle will always depend upon three ever-varying elements: 1st, upon the character and standing of the experts summoned for the defense; 2d, upon the ability of the experts whom the prosecution has been able to subpœna; and 3d, upon the competence of the judge to harmonize opposing opinions. But, even supposing these elements constant in the two cases, it is in most cases impossible for even a competent expert to give a just and accurate opinion, owing to the rule of legal evidence which requires the facts, upon which the opinion is based, to be presented to him in a hypothetical form, by attorneys who are interested in suppressing material facts, or who are ignorant of the facts necessary to be presented in order to the formation of an intelligent and satisfactory opinion.

Both medical and legal professions could not fail to be dissatisfied with a system so barbarous in its conception, so unjust in its consequences. Prof. Chaille, speaking for the medical

profession, declares that "with the power of medical science crippled at the coroner's inquest, then prostituted by the partisan opinions of incompetent experts, then perverted by advocates, and at last, when emasculated of all vigor, submitted for decision to those unable to estimate its weight—what wonder that such gross misapplication of medical knowledge brings upon it that public contempt which belongs justly to methods so monstrous, and to which true medical knowledge is a helpless, pitiable and disgusted victim."

Lord Campbell says, "that skilled witnesses came with such a bias on their minds to support the cause in which they are embarked, that hardly any weight should be given to their evidence."

Chief-Justice Chapman, of Massachusetts, observes: "I think the opinions of experts are not so highly regarded now as they formerly were; for, while they often afford great aid in determining facts, it often happens that experts can be found to testify to anything however absurd."

Judge Davis, of Maine, goes even farther: "If there is any kind of testimony that is not only of no value, but even worse than that, it is, in my opinion, that of medical experts."

Judge Redfield, of Vermont, also remarks that there is "but one opinion as to the fact that this kind of testimony is extremely unsatisfactory. * * * We are more and more confirmed in our opinion, that the difficulty comes largely from the manner in which witnesses are selected. * * * If the State, or the courts, do not esteem the matter of sufficient importance to justify the appointment of public officers, * * * it is certain the parties must employ their own agents to do it, and it is perhaps almost equally certain, that, if it be done in this mode, it will produce two well-trained bands of witnesses, in battle array against each other, since neither party is bound to produce, or will be likely to produce, * * * witnesses who will not confirm their views."

It was this opinion existing in the two professions which led to the founding in 1867 of the Medico-Legal Society of New York, an organization worthy of imitation in other States. The object of this Society is to assist in remedying the evils of our present mode of practice, to create intelligent public opinion upon the subject, and to supply,

in so far as it can, the omissions of State legislation. It now numbers between four and five hundred distinguished physicians and lawyers, and owns one of the finest medico-legal libraries in existence. Much has been already done to improve the laws of New York in regard to experts. Its labors, if properly carried on, will doubtless eventually result in a procedure founded on justice and intelligence.

England originated the voluntary system, and she and her colonial offspring have had a monopoly of its absurdities.

Under the Roman law a system somewhat similar prevailed. The parties were allowed to call experts at their own option. But if the judge was not satisfied with the testimony, he could call experts (*artis pariti*) to testify impartially, in regard to such physical laws and natural phenomena as he was not sufficiently acquainted with to properly weigh the evidence produced by the contending parties. The canon law appears to have recognized a similar practice. The civil law became the law of France. But, unlike ourselves, the French failed to recognize the infallibility of their ancestors. The importance of competent and impartial expert testimony in judicial investigations was perceived at an early day. Legislation was had in the Sixteenth Century, encouraging the teaching of medical jurisprudence. But not even the courts escaped the reign of corruption that attended upon the Bourbon rule. At the time of the French Revolution, the office of medical expert had become venal and hereditary. Since then, France has been most liberal in the encouragement of medico-legal science. Under the present practice, the voluntary element is totally eliminated. The judge, only, has authority to summon experts. None are competent, save those who have attended at least one course of lectures on medical jurisprudence, and have passed a rigid examination. Thus do they aim at avoiding incompetency and obtaining impartiality. Such a method of procedure is far in advance of our own. Yet it is bitterly criticised and denounced by the French themselves, on the ground that their judges are incompetent to make proper selections; that they are apt to give preference to their family physicians, and to practitioners of mere popular repute; and, on what is perhaps a better ground, that official patronage is a thing entirely inconsistent with the judicial office.

We must turn for the model system to that of Prussia. Two centuries and more ago, what is now a great and prosperous Empire comprised a lot of insignificant little States. The master mind of the Prussian King conceived the idea of gradually uniting them under one great head, that would lend strength and dignity to all. The rapid fall of all governments based on force, convinced him of the utter futility of employing that element for his purpose. He determined that this new Empire should be founded on intelligence which should be thoroughly infused among the people and into every branch of governmental service. The verification of the German status is now complete. In the midst of great calamities and trials, by long years of hard work, under administrations economical to parsimony, he and his successors have developed an educational system, which for half a century has won the admiration of the world by its intellectual conquests, and which, in the past ten years, has aroused the world's wonder by its political and social triumphs.

In Germany alone has medical jurisprudence received a proper estimate of its worth. It was introduced into the German Universities at their foundation, and made a part of medical education. The expert was made a government officer, holding his position because of his peculiar skill and fitness. The present organization is the result of continuous legislation upon the subject since the early part of the 16th century. It consists entirely of medico-legal officials, and is divided into four divisions. The County Physician and County Surgeon constitute the first, the County Tribunal. They are required by law to be thoroughly educated in medicine, surgery, and obstetrics, and to have a special training in medical jurisprudence. This training is certified to by examinations before a Supreme Medical Commission. The duties of the County Tribunal are two-fold. It is incumbent on them to investigate all medico-legal questions referred to them by the courts. They also perform the duties which in this country are performed by the coroner. Their appointment is continuous, and they owe it to neither party, but to the State. They make personal investigation of the facts in every case. Power is given them to take testimony. They may call experts as counsel if they wish, but these experts must have certificates, received from State examinations, of

their skill in the specialty whose principles it is desired to apply. The facts and proofs, and the conclusions arrived at by the expert tribunal, are then shaped into a written report, which is carefully preserved along with the report of the subsequent proceedings had. So far as the court making the reference is concerned, this report is conclusive; but the physician and surgeon may disagree, or the parties interested may be dissatisfied. To meet these cases, an appeal is made to the second division of this organization. This division consists of a medical commission of from four to six members, and is somewhat analogous to our district courts. One such commission exists in every province. If dissatisfaction exists with the decision of this tribunal, an appeal lies to the third division. This is the Supreme Medical Commission, comprising men of national reputation. In the fourth division we find the Minister of Medical and Sanitary Affairs, who presides over the entire department of State medicine.

We may demonstrate the difference between the two systems by an illustration: Suppose a criminal case in which moral insanity is set up as a defense. Under the American practice, the expert gives his opinion as to there being such a thing as moral insanity. The judge determines the degree of responsibility in one who is morally insane. The jury return a verdict as the fact whether the prisoner is insane or not. In other words, the expert advises the court as to the major premise of the syllogism. The jury find the minor premise. The judge draws the conclusion, For example, the expert says: "It is my opinion that there is such a thing as moral insanity." If the judge is satisfied with this opinion, and also thinks that moral insanity will free a criminal from responsibility for his acts, he lays down the major premise thus:

"All criminals morally insane are not responsible for their acts, and should be discharged."

The jury then lay down the minor premise in this manner:

"The criminal undergoing prosecution is (or is not) morally insane."

The judge then draws the conclusion:

"The prisoner is (or is not) discharged."

If either is wrong, the conclusion must be wrong. But, as has been before pointed out, it is impossible for the

jury to determine the fact, or the judge to determine the degree of responsibility resulting from the fact, unless they have become acquainted with the nature and phenomena of moral insanity through that study and observation which one or the other are sure not to have made. The Germans have escaped this absurdity by leaving the determination of both major and minor premise, the determination of scientific principles and scientific facts, to those who have made scientific principles and scientific facts a life-long study. To the judge is left only the drawing of the conclusion from premises prepared by the scientific tribunal—a duty which any one acquainted with the simplest rules of logic can perform.

Critics, having in mind the old conflict in England between the law and equity jurisdictions, may anticipate such another with the expert tribunals. But in practice this has not arisen; nor is it likely to arise, any more than conflict is likely to arise between courts and referees or master commissioners, or between legislative bodies and their committees. Science is the limited sphere in which the expert tribunal must move. Without, its acts would be a nullity; within, the courts have hitherto done little more than injustice. If a strong feeling is growing up against the determination longer of scientific questions by tribunals totally unqualified for the purpose, and to whose procedure antiquity and custom alone lend any dignity, there can be but little doubt but that if scientific tribunals were to innovate by assuming to meddle with questions of law and ordinary fact, which in the nature of things they were unfit to pass upon, national conservatism and public convenience would afford an impassible barrier to such an assumption.

Such an organization as that of Germany recognizes the duty of government to employ every instrumentality that will secure justice to the citizen. It recognizes the full importance of the skilled and competent expert in judicial inquiries. It recognizes the fact that experts stand to the court in the relation of assistants. It therefore denies, to those who are interested, the choice of these assistants. The educational requirement renders the expert competent. His appointment by the State ought to render him impartial. His own knowledge will enable him to select competent assistants, and to properly determine the weight of

evidence. The right of appeal furnishes ample security against injustice or mistake. Delays may be caused, it is true, but justice can afford to move slowly so long as it moves with certainty. Besides, it will be but a few years before all the main questions that can arise will be settled and precedents recorded in medico-legal reports. Judicial proceedings will thus be shortened, and a uniformity obtained in the decisions of subordinate tribunals, which will more than compensate for temporary delays.

The absurdities of the American method of procedure render its reform imperative. The only effective reform is to build anew. Its voluntary character should be taken away and itself made part of the machinery of government. When our State makes the demand, our medical schools will furnish an ample supply of competent medical experts. The change may be expensive, but there can be nothing more expensive than the injustice wrought by the methods now in use. Medical officers should be officers of the government, as are the judges whom they assist. They should be appointed for life, in order to secure impartiality. They should be rigidly examined, that competent men may be obtained. They should be well compensated, that men of ability may be induced to occupy the office. There should be a right of appeal, that mistakes may be corrected. The duties of coroner should be performed by men specially trained for the purpose.

If our government should consider the science of medical jurisprudence and its application to judicial investigations of sufficient importance to justify the establishment of a Department of State Medicine, these, to my mind, are some of the principles upon which it should be built. In such an event, we might expect to see the medical profession freed from the unjust reproaches which have so often been heaped upon it, and the testimony of medical experts rescued from the disrepute into which it has now fallen. Then might we look upon the true medical expert as he has been ideally painted—he who vindicates truth by contributing to the ends of justice, who is disembarrassed of all personal relations, who has no client to serve and no past partisan extravagances to defend, who will render his opinion as the advocate neither of another nor of himself; but who can speak as the representative of the sense of the special branch of science which the case invokes.

REPORT OF COMMITTEE UPON COMPENSATION OF MEDICAL EXPERTS.

The committee to whom was referred the subject of "Compensation for Services rendered by Medical Experts," have considered the same, and beg leave to report—

1st. We find it to be a custom generally prevailing thoroughout our country, to employ the sovereign power of our State, through its judicial machinery, to order the attendance of physicians and surgeons upon the trial of criminal and civil cases, there to hear testimony and to give counsel and instruction upon such medico-legal questions as may arise in the case.

2d. We find there are no laws upon our statute books to provide for a proper compensation for such services. With but a single unimportant exception, the law provides only for fees for ordinary witnesses.

3d. The manifest injustice to medical experts, growing out of this neglected legislation, has seemed to justify the acceptance of a suitable fee, compensating in some degree for the loss of time and business, the expense and the value of the service rendered by the medical expert from the parties litigant or their attorneys. Hence the origin, and the apparent equity, of what may now be considered the established usage.

4th. This results in bringing into the courts, voluntarily, two sets of witnesses, each impliedly under contract to render his best service in the interest of the party by whom he is paid.

This naturally, and in the opinion of your committee very properly, tends to bring medical experts into disrepute, to degrade the high character which their proper office should command, and in many cases to subvert the ends of justice.

We submit that such legislation and such customs are in their very nature subversive of the very objects for which they were instituted, and ought to be speedily abolished, and a new system created which shall be based upon principles of equity and of justice to all concerned.

In the opinion of your committee the State should provide for the employment of a sufficient number of medical experts, whose competency should be secured by such rigid examination as would place their qualifications beyond question; whose impartiality and independence shall be secured by appointment for life; who should be officers of the State, as are the judges whom they assist. They should be well compensated, that men of ability may be induced to accept the position. There should be a right of appeal, that mistakes might be corrected and true science vindicated. There should be a department of State medicine, organized and put under their care, which, if properly managed, would secure to our people a return in value of tenfold the cost of such a system.

These radical reforms cannot be accomplished by a single spasmodic effort; they must come as the growth of years and experience.

In the meantime we would commend to such members of the medical profession as may be called upon to serve as medical experts, to decline any and all offers of compensation from parties litigant in advance, but to render such service as may be required, after which to make out and present for the approval of the court a bill for services rendered, based upon considerations of the value of the services, the time spent, and such other considerates as are usual in estimating the value of professional services.

These bills would in a large majority of cases be approved by the court, and taxed and collected as are other costs. This is the method by which the legal profession is compensated by the courts for services rendered as referees or master commissioners, and it has often been resorted to in the case of medical experts.

Your committee would recommend the organization of a large committee, consisting of one or more members in each county in the State, whose duty it should be to take charge of the proposed reform, to secure the repeal of the present system and the building up of a new one upon its ruins, and especially to educate and secure an interest in the coming legislature upon this subject.

Respectfully submitted,

W. H. PHILIPS,
C. P. LANDON.

MAXILLARY

—AND—

NASO-PHARYNGEAL TUMORS,

BY J. W. HAMILTON, M. D., COLUMBUS,

PROFESSOR OF SURGERY IN THE COLUMBUS MEDICAL COLLEGE.

1878.—9.

MAXILLARY

—AND—

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What is a retro-maxillary tumor?

Are retro-maxillary tumors susceptible of removal by surgical operation, or is the shock produced by them so uniformly fatal as to render the attempt unjustifiable?

These questions are by no meams fully settled. They are fairly before the profession for adjudication. It is the simple duty of any member who is in possession of facts to make his contribution. A preponderance of evidence in this, as in other adjudications, should determine the verdict.

It is this simple view of duty that impels me to present to the Society the following cases:

NASO-PHARYNGEAL FIBROIDS.

The roof of the naso-pharyngeal cavity consists mainly of the basilar process of the occipital and the body of the sphenoid bone. The periosteal covering of these bones is, for a structure of the kind, peculiarly vascular. It is probably in this fact that the explanation is to be found of the frequent existence of fibroid growths in this situation.

A remarkable characteristic of these growths is their tendency, while there is still abundant space for their growth in the naso-pharyngeal cavity, to insinuate them-

selves through the surrounding osseous apertures and into the neighboring cavities. For instance, such a tumor may enter the maxillary sinus and press upon the floor of the orbit; or it may pass around the bone, and present itself beneath the skin of the cheek; or, again, it may send prolongations through the spheno-palatine and spheno-maxillary openings, or through the sphenoidal fissure into the orbit; or through the pterygo-maxillary fissure into the temporal fossa; they have even found their way into the frontal sinuses, or to a greater or less depth into the eustachian tubes. Passing through the sphenoid fissure, or deeply involving the sphenoid cells, they occasionally reach the cavity of the cranium.

Passing through the pterygo-maxillary fissure, they are post-maxillary. Occasionally they are confined throughout their history to the cavity in which they originate, admit of easy removal and manifest no disposition to extend or to recur when removed; as in the following case:

CASE I.

A young man, aged 18 years, came to me in 1869, with an apparent nasal polypus. For a year or two he had been subject to epistaxis. An examination revealed the fact that the anterior part of the left nasal fossa was quite clear, whilst the deeper part was occluded. Carrying the finger behind the soft palate, it encountered a firm body, evidently somewhat pedunculated, and as large as the closed hand of a child a year old. Drawing the soft palate well forward, a large part of it could be distinctly seen through the mouth.

Its removal was accomplished in the following manner: Passing Bellocq's instrument on the floor of the nostril, I succeeded by its use in passing a loop of whip-cord back through the nostril, and then out of the mouth. Then, withdrawing Bellocq's instrument, I passed the two ends of whip-cord, which hung from the nostril, through the handle portion of a heavy, strong, French catheter. Using this as a kind of handle, and my finger as a guide, by drawing upon the free ends of whip-cord, I succeeded in looping it around the pedicle close up to the base of the skull. This was now drawn with all possible tightness,

and secured at the outer end of my catheter. On every alternate day this tightening was repeated. On the morning of the sixth day, as I was engaged in repeating the operation, the thread cut through, and the tumor was removed from the mouth.

The patient left the city in a few days, and I have not heard from him since. From this fact, I am led to suppose the cure is permanent.

CASE 2.

About a year after this case was on my hands, Dr. Hammel sent to my care Mr. S., aged 20, on whom he had performed a ligation for the removal of a tumor from the naso-pharyngeal cavity. Visiting him a few days after the operation, the tumor had just separated. Terrific hemorrhage accompanied the separation. The Doctor told me it was the most frightful he had ever witnessed. Slowly recovering from this, after a few months the hemorrhage returned, repeating itself once in two or three months, and not ceasing till the patient was thoroughly blanched. In the meantime the tumor returned, and, attaining quite a large size, he sent him to me.

I proceeded at once to repeat, even in detail, the operation which I performed in case one. The whole thing was pleasant, and beautifully promising. In a little less than a week the tumor came away, and I flattered myself that the removal was complete and the cure perfect. A few months, however, revealed the discouraging fact that the growth was still progressing. I now determined to wait and watch. After about six months a suspicious prominence over the temporal fossa, just above the zygoma, presented itself. In the meantime the hemorrhages were of unabated severity, and my patient was kept exceedingly bloodless. It was quite clear, too, that the disease was in a fair way to get beyond the reach of the most daring expedients known to surgery. I accordingly determined, hoping that that point was not reached, to make a final desperate effort to save my patient.

I should state here that, although the tumor that presented itself in the temporal fossa was not of great size, it was unequivocal. It is well to bear in mind, too, that to reach that point it must crowd behind the superior maxil-

lary bone, and between it and the pterygoid process of the sphenoid, and that the inevitable tendency of its developing in that situation was to crowd the superior maxillary forward and thus give prominence to it. Yet nothing of this kind had occurred. The superior maxillary was in situ. Not a tooth was disturbed, or even decayed. But the disease that was sapping the life of my patient was hidden behind it, and imperatively demanded its sacrifice.

I need not particularly describe the preliminary part of the operation. It consisted in an extirpation of the superior maxillary bone. This being accomplished, the facility with which I reached and removed the tumor was quite remarkable. The portion lodged in the temporal fossa required but little dissection. In fact, all I had to do was to trace the mass to its pedicle, which I separated entirely with the fingers. It involved the basilar process of the occipital and the body of the sphenoid. As it drew out of the sphenoid cells, I suspected for an instant that the cavity of the skull would be entered, but, to my relief, I found it otherwise. The amount of blood lost was trifling. The shock was marked, but not extreme. The operation was performed on a Saturday, at 10 o'clock, A. M. By 6 P. M. there was fair reaction. Sunday forenoon and afternoon reaction was considered complete. On Monday this was sustained so perfectly that I suggested to several friends, who were staying about the city, that the danger from shock was past, and that they might return home. All passed pleasantly on Tuesday. On Wednesday morning at 6 o'clock, I received a message that he was in great agony from some difficulty about his chest, more particularly his left side. This came on after midnight. Visiting him as soon as possible, he had just expired. An autopsy was not admissible. *My patient did not die of shock.* The reasonable explanation is that he died of thrombosis and embolia.

The notes of this case were carefully taken and filed away. Before they were copied into the case book they were lost. This fact, and the absence of an autopsy, deprive me of much that is valuable. So far as the mere question whether the patient died of shock is concerned, I have not the slightest hesitation in claiming that he did no such thing. For more than eighty hours reaction was complete, without any sign of flagging or failing. In fact,

it was not at any time, during or after the operation, at all alarming. I am particular to emphasize this point, because it is the vital one in the case. If the patient died of shock the case merely serves to augment the list of disasters which have followed these operations. If he reacted, and died of something not at all peculiar to capital operations, the case belongs with those that tend to justify the operation. So far as I am individually concerned, if another such should present itself, I should without hesitation repeat the operation, with the confident expectation of the recovery of my patient.

The tumor removed consists of two fibrous masses. The one that passed into the temporal fossa weighed one ounce, was pyramidal in shape, the base resting against the skin. The pharyngeal portion weighed two ounces and had a broad base of attachment.

And yet to undertake to reach and remove such a growth, so situated, is one of the expedients that might well cause hesitation. As a preliminary, the superior maxilla must either temporarily or permanently be removed. In and of itself, this is not necessarily either very difficult or very dangerous. Including one case in which I operated in connection with Dr. J. W. Russell, of Mt. Vernon, I have performed the operation of removing the whole superior maxilla six times. All my patients quickly recovered. But when it becomes necessary, as in this case, to perform this operation upon a jaw that is perfectly healthy, for the purpose of exposing a growth behind it, the connections and relations of which are necessarily quite uncertain, the case assumes quite a different aspect. So far, such operations, with but little exception, have been attended by fatal shock. Ashurst was barely able to get his patient from the table. Hewett was less fortunate. His patient expired before the operation could be completed. My own case, in its final outcome, was equally unfortunate. But I unhesitatingly claim that it did not die of shock, but from a complication that is liable to follow any operation.

Whilst I believe it to be true that retro-maxillary fibroids usually consist of prolongations of naso-pharyngeal growths, there is no doubt but they occasionally have a different origin. Indeed it is not easy to see why they are not even more likely to arise as growths from the very vascular

periosteal covering of the tuberosity of the upper jaw itself, or even from that of the pterygoid plates of the sphenoid. Such was undoubtedly the origin of the retro-maxillary portion of the growth described in the following case:

The patient was J. W. M., a lad aged 16 years, from Muskingum county. More than three years previously he was attacked with severe pains, supposed to be tooth-ache, in the right superior maxillary bone. The suffering, sleeplessness, etc., were such, for six months, that he was pretty much confined to the house. In the meantime, the region of the jaw had undergone apparent tumefaction. For a year and a half this grew rapidly, attaining very considerable size. At this stage he spent six weeks in the Commercial Hospital in Cincinnati, where ligation of the carotid of the right side was performed by Prof. Blackman, for the purpose, it is supposed, of retarding the growth. It probably had that effect, to some extent. Subsequently the boy visited the leading cities of this country, and Liverpool in England, for the purpose of obtaining professional advice and assistance. But for some reason the case does not seem to have enlisted very earnest attention, or was, perhaps, not deemed suitable for an operation. In the meantime, although the general health was good, the disease was steadily progressing, and it was evident a fatal event was not far in the future.

At this stage he was sent to my care by Dr. Hildreth, of Zanesville. The tumor was now of immense size. It pressed upon the floor of the orbit, carrying the eye into its upper and anterior part, giving it a most unpleasant prominence. The zygoma and malar bone of the affected side were thrown out, so as to give a most unseemly prominence in that situation. All the teeth of the affected side, except the first bicuspid, the canine, and two incisors, had long previously been forced out, and these were huddled together on the left side of the median line. The hard and soft palate were forced down upon the floor of the mouth; the nares of both sides were plugged tightly, the septum being forced toward the left; the tumor protruded between the teeth so as to separate the jaws to the extent of fifteen lines. The upper jaw of the right side was advanced twelve lines, and in a direction not greatly removed from a straight line. The raphe of the hard

and soft palate was removed but a very few lines from the alveolus of the left side, between which parts there was a groove, admitting of the passage of food, etc. Laterally the tumor was exceedingly prominent, and descended to a point six lines below the level of the inferior maxillary bone. Posteriorly, just beneath, and in close connection with, the posterior extremity of the zygoma, a mass presented itself, larger than a hen's egg. Whether this was a superficial prolongation backwards of the growth or an outgrowth of the deeper into and through the pterygo-maxillary fissure, could not, before the operation, be satisfactorily established. The latter seemed to be the only satisfactory explanation of the anterior projection of the jaw, and in the operation proved be the actual state of the case. The part protruding from the mouth was in a state of ulceration. Frequent hemorrhages occurred from this surface, and from all the mucous surfaces involved. During sleep, breathing was slow and noisy to a most frightful degree.

Repeated examinations, and the most rigid scrutiny of all the circumstances of the case, resulted in a conviction that an operation was practicable and demanded. The views entertained of the case were as follows:

The disease evidently, or at least probably, originated in the antrum. Having progressed to some extent, the walls of that cavity had become greatly attenuated, or had even disappeared, from absorption. Being now relieved from its osseous boundaries, the general enlargement of the mass, and especially the enlargement of that part occupying the situation of the pterygo-maxillary fissure, had gradually, and with comparative facility, forced the entire jaw forwards. This view of the case was regarded as being much more consistent with all its circumstances than the supposition of an original tumor in the pterygo-maxillary space, although the leading diagnostic symptom of that difficulty—the anterior projection of the upper jaw—was present in a marked degree.

All the hazards and uncertainties being distinctly stated to the parents in writing, a written request was made that they should be assumed; which was accordingly done, the venerable Dr. Geo. Sacsche and Drs. Drury, Seltzer, Gill, and Washenswanz, assisting. The usual incisions, from the inner canthus to the middle of the upper lip, and from

the zygoma to the outer angle of the mouth, were made in the ordinary manner. In making the latter, a very great curvature downwards was given the incision, so as to make it practicable to get below the tumor. In dissecting up the flap, it was found necessary to make it very thin, as the tumor had involved, or caused the absorption of, the subjacent tissues. Dissecting the cellular tissue and infra-orbital nerve from the floor of the orbit, the eye was protected by a spatula. The usual division of bone was now effected with great facility, mainly by the use of the bone forceps. The lateral aspect of the tumor being next well cleared of soft parts, an attempt was made to bring the whole away by pressing it down in the ordinary manner. But this could not be accomplished. The steps of the operation were now carefully reviewed, with a view to ascertain whether, in the previous steps, there had been any inefficiency, especially in reference to the division of bone. None could be discovered. The result was a conviction that the difficulty originated in the intimate attachments of the parts beneath the zygoma, and which could not be reached at this stage of the operation. The only alternative was to attempt the removal by piece-meal. With some difficulty a mass of the size of a fist was removed; then a smaller one; and now the lobe wedged in the situation of the pterygo-maxillary fissure was reached and torn away with the fingers, the knife merely assisting. In now attempting to complete the removal of the floor of the orbit, it gave way, leaving the posterior part of it in situ. The disease was strongly attached to its under surface and also to the body of the sphenoid, and to the basilar process of the occipital bone. This was cut as closely as possible with the knife, and then subjected to the vigorous use of the actual cautery. Only a slight fringe of the posterior margin of the soft palate was saved. The operation was necessarily tedious and bloody in the extreme. The great apron of skin which constituted the flap was thin as skin could be, and, by the time we were through, seemed to have lost all signs of vitality. The dressing was as usual. Chloroform was given in the outset, but was very soon abandoned on account of hemorrhage.

The note book record reads as follows:

"The shock to the system was very great, but fair reac-

tion was present at the end of twenty hours. For a few days sloughing of the flap was apprehended. The stitches were removed on the third and fifth days, adhesion, meanwhile, having occurred. Some difficulty was experienced in keeping the flaps stuffed out, on account of the great size of the chasm. On the 10th day, I found the patient walking about his room. On the 12th day, he traversed the city on foot. On the 14th day, he made a visit to his friends fifty miles distant, walking two or three miles at the extremities of the route. His appearance is, of course, vastly improved, although it is still peculiar. The malar bone and zygoma are unseemly, though their undue prominence is in a great measure lost, from a fracture of them which occurred in the operation. The central incisor of the left side stands with its edge exactly forward, and is twelve lines in advance of the corresponding lower incisor, making an unpleasant prominence in that situation. Previous to the operation there was, except in a single direction, total blindness. Vision, and the natural degree of prominence of the eye, are perfectly restored. The tumor is evidently a simple fibrous mass; yet from its having so perfectly passed the boundaries of the antrum, there is, of course, some degree of apprehension that enough escaped the knife to effect a reproduction. Yet the most rigid scrutiny, after the completion of the operation, as described, did not indicate a single suspicious point."

It is now more than seventeen years since the operation was performed. About four years ago I saw the patient from my place on the witness stand, in a crowded courthouse, seeming to be in perfect health, and without anything about his appearance to indicate the frightful mutilation to which he had been subjected. So far as I know, he remains in perfect health, without any sign of the return of his disease.

The first of the accompanying wood cuts gives what was his general appearance very fairly. It does not, however, adequately show the prominence in the temporal fossa, or of the eye-ball, or the mass that projected into the mouth. The curved line indicates the situation and direction of the principal incision.

The second cut is from a photograph taken about eight years after the operation, and is a true representation of his condition and appearance.

[By a mistake of the artist the engravings were reversed; so that the tumor appears to have been on the left side instead of the right. J. W. H.]

The tumor is of such size that it fairly fills a quart jar. So far as I know it is the largest growth of the kind in which removal has been followed by the recovery of the patient.

These two cases speak for themselves. So far as the general subject is concerned, they settle nothing. I think I may reasonably claim, however, that they present a fair argument in favor of what will probably always be regarded as a desperate procedure, to be reserved, of course, for desperate cases.

SEMI-MALIGNANT ENCHONDROMA OF THE INFERIOR MAXILLARY BONE, WITH ITS ENTIRE REMOVAL.

The patient was a Mr. Ramsey, of West Virginia, who came to Columbus to consult me June 26, 1872.

At the above date I found a tumor extending from the middle of the ascending ramus of the left side to the last molar tooth on the right, measuring on a horizontal line fifteen and one-half inches. Opposite the second bicuspid of the left side, the projection outwards from the line of the teeth was three and one-fourth inches. In a large part of its extent the outward projection from the line of the teeth exceeded two and one-half inches. Ordinary handling produced the impression of bone-like hardness. Strong point pressure elicited, in a large part of its extent, distinct parchment crackling, such as characterizes enchondroma.

Twelve years previously an epulis of the size of a cherry was removed from the vicinity of the second left inferior

molar. A few months subsequently a small "cancerous ulcer" appeared in the same region. This was healed by ordinary simple means. Six years afterwards, and about six years previous to my operation, a tumor, supposed to have weighed two or three ounces, and involving the region of the left canine and the three neighboring incisors, was removed by Dr. Ramsey of Charleston, West Va.

The patient was a man of excellent conformation, in good general health. He was possessed of great courage and excellent common sense. It was explained to him that the attempt at removal of so extensive a mass had little precedent, and though not hopeless was exceedingly perilous. Without hesitation he determined to stake everything upon an operation.

The operation was performed July 1, 1872, at my operating room, in the presence of a large part of the profession of Columbus and Franklin county. An incision was made from ear to ear, which must have been about twenty inches in length. To facilitate disarticulation it was necessary to divide the jaw. Instead of doing this in the neighborhood of the symphysis, I made it about the angle on the right side, hoping that I might find the right ramus healthy, and be able to simplify the operation somewhat by leaving it. In this, however, I was disappointed. Finding unequivocal involvement, I found it necessary to disarticulate on both sides.

There were no difficulties encountered, except such as are inseparable from so extensive an operation in such a situation. The shock, however, was such that my patient sank at the end of forty-eight hours.

According to a collection of cases made by Dr. Gouley, of New York, and reported to the International Medical Congress at Philadelphia, eighteen cases of complete extirpation of the inferior maxillary have found their way into the current medical literature, as occurring in this country. Only three of these are from the West; one from Prof. Blackman, of Cincinnati; one by Drs. Hodgen and Mudd, of St. Louis, and one from Dr. Westmoreland, of Atlanta.

SUB-PERIOSTEAL EXCISION AND DISARTICULATION OF ABOUT ONE-THIRD OF THE INFERIOR MAXILLARY BONE.

Patient Mrs. A. E. D., of Nevada, Wyandot county; aged fifty years. The disease had been progressing about fourteen months. During this time there seemed to have been three distinct and severe inflammatory attacks. A sinus formed, and a sequestrum about the size of a bean escaped. In connection with all this, a tumor formed, at and in front of the angle, of the size of a large hen's egg. It involved the alveolar border prominently, but the rim was implicated in a less degree.

I performed the operation of excision November 14, 1877. A single incision along the base was made from the zygoma to a point over the canine tooth of the same side. Cutting down to the bone, I made a few circular sweeps around the sinus, which entered the tumor on its alveolar border. Having thus divided the periosteum, I began its separation from the bone with the back of my knife. This being well advanced, I continued it with my fingers. I should have mentioned that the bone was divided just behind the canine tooth, with a single clip, with strong bone scissors. The cut end being seized with forceps, lifted outwards, and finally pulled forwards and downwards, and the fingers carried upwards, the bone was disarticulated, and removed without dividing a single muscle or at all interfering with the ligamentous structures of the articulation. It could have been done just as easily and as well if my incision had stopped an inch below the articulation. Aside from the sinus which already existed, the operation did not enter the mouth at all.

After the operation, the patient ate well every day, and sat up right along. Not a single anodyne was administered. Visiting her on the fourth day, she had gone to church. The next three days were devoted to traversing the city and seeing its sights. A week after the operation she went home well and happy. Already the outline of the former site of the excised portion of jaw was quite firm, giving promise of the rapid formation of a useful substitute.

The tumor proved to be a fair specimen of what has been designated cavernous exostosis. Its cavity was large

enough to admit and hold the last joint of a common-sized finger. It contained a water melon seed that must have been there for more than two months. The periphery of the mass had the characteristics of ivory exostosis.

The operation of removing portions of the inferior maxillary bone are so common that isolated cases possess but little interest. My own operations have been quite numerous, and often more extensive than in this case. This is the only one, however, in which I ever attempted a subperiosteal extirpation. The effect upon the patient was but little more than might be expected from the extraction of two or three teeth. The facility with which it was done was such, that, if just such another case should present itself, I should probably make the disarticulation, and also the removal of the greater part of the ramus, not only sub-periosteal, but sub-cutaneous as well.

DISCUSSION OF DR. HAMILTON'S PAPER.

DR. J. H. BUCKNER, of Cincinnati: I would like to ask the gentleman if he has not observed that patients afflicted with naso-pharyngeal tumors are more or less deaf from that cause?

DR. HAMILTON: I have not noticed that such has been the case. It is possible, however, that deafness may have existed in my cases, but my attention was not called to it.

DR. BUCKNER: The reason I make the inquiry is, that, judging from my own observation, the large majority of individuals, if not all, having naso-pharyngeal tumors, whether fibrous in character or mucous polyps, are partially deaf. Nasal polypi are often associated with partial deafness. The patients themselves are frequently not aware that they do not hear as well as other persons, as they do not generally suffer with pain in the ear, and can hear conversation. But if every such case is tested with the watch, it will be found that in one or both ears the hearing distance is considerably below the normal, and in many cases one ear will be found to be too deaf to distinguish what is said in the ordinary conversational tone. The cause of the deafness may be due to the direct pressure of the pharyngeal tumor upon one or both eustachian outlets, or to the partial closure of the tubes by the swelling and chronic thickening of the mucous membrane.

THROAT AND NASAL AFFECTIONS

——IN THEIR——

RELATION TO DISEASES OF THE EAR,

BY J. H. BUCKNER, M. D.,

OF CINCINNATI, O.

1878.—11.

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RELATION TO DISEASES OF THE EAR,

BY J. H. BUCKNER, M. D., OF CINCINNATI.

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At an early period in the history of medicine, the important influence which diseases of the throat exert upon the organs of hearing, was recognized, and more or less accurately described.

About the middle of the 16th century, Eustachius discovered the tube which connects the throat and middle ear, "this with other anatomical discoveries was described in his work Opuscula Anatomica," published at Venice in 1563.*

But nearly a century before the publication of the work of Eustachius, "Celsus had recommended gargles in affections of the ear." It is not certain that he knew of the existence of the tube, although it had been distinctly described before his time. Galen also wrote upon the same subject. In 1724 Guyot proposed to the Paris Academy to inject the Eustachian tube through a curved tin tube introduced through the mouth, and is said to have in this way relieved himself of deafness. In 1741,

*In this connection it is pleasant to know that the important discoveries of the great anatomist are likely to be commemorated by a monument to be erected in his native village, San Serverino near Salerno, through the efforts of the eminent pathologist, Prof. Virchow, of Berlin.—"Letter from Virchow," Medical and Surgical Reporter, Vol. XXX, p. 35.

Archibald Cleland, an English army surgeon, invented a flexible silver tube which he introduced through the nose into the eustachian duct, into which was thrown warm water by a syringe. I might, if the limits of this paper would permit, trace the progress made through succeeding years in the correct understanding and treatment of aural and throat affections. As in other departments of science, the greatest progress has been made in this field during the last quarter of a century. The otoscope, introduced by Toynbee in 1853, the laryngoscope and rhinoscope, by Czermak, have marked as great an advance in aural and throat surgery as did the ophthalmoscope in ophthalmology.

Notwithstanding the progress which has been made in these departments, there are a few men, even among the specialists upon diseases of the ear, who affect to treat with indifference the necessity of looking to the throat in the treatment of ear troubles. The labors of Wilde, Toynbee and Troltsch upon the ear, of Turke, Tobold, Mackenzie, Cohen and a host of other writers upon the throat, are as nothing compared to their complacent and self-sufficient wisdom. The attempt to treat ear affections without a careful examination and study of diseases of the throat, is in my opinion about as rational as the effort to cure a chronic cough without investigating the throat and lungs. The most common of all forms of ear disease—acute and chronic aural catarrh—generally depend principally upon some throat affection.

For a more critical examination of this subject, I propose to consider those affections of the throat and nose, which produce or complicate ear trouble, first during childhood, and second in adults.

The sore throat resulting from the exanthemata, scarlet fever, measles and small pox, in the order in which they are named, may be regarded as the most frequent starting point of serious ear trouble in children; next in frequency, coryza, whooping cough, tonsillitis, acute and chronic diphtheria, syphilis and adenoid vegetations.

Of the exanthemata, scarlet fever is the most destructive in its effects upon the ear. The affection of the throat in this disease very frequently precedes the eruption upon the skin. The mucous membrane of the pharynx early in the disease is of deep red color, the palate and tonsils are

swollen, the cervical glands are enlarged and painful, effusions into the submucous connective tissue take place, the inflammation often extending into the naso-pharyngeal region, the pharyngeal portion of the eustachian tube becomes involved, the inflammation extending along the mucous lining of the canal into the middle ear and mastoid cells, the pharyngeal opening of the tube is closed by tumefaction, the tympanic lining membrane becomes congested, then follows an exudation, from the engorged vessels, of serum which fills the cavity of the tympanum and mastoid cells. At this period a marked increase in the head symptoms takes place, the little sufferer frequently rolls the head from side to side with "wild delirium." If the fluid at this stage does not find exit through the aid of the medical attendant, or by ulceration and spontaneous rupture of the membrana tympani, coma supervenes from pressure of the confined fluid upon the labyrinth.

In an article upon this subject by J. P. Cassells, M. R. C. S., published in the Edinburgh Medical Journal, and quoted by the Medical and Surgical Reporter April 22, 1876, the author states that if an incision be made in the membrane before effusion has taken place, "the disease will be deprived of its power to do damage." I doubt, however, if this can always be relied upon, as a slit in the membrana tympani, as is well known, closes up by adhesive inflammation in a remarkably short space of time. I agree fully with the author, however, as in fact do all modern writers upon aural diseases, in the propriety of making a free incision in the membrane as soon as fluid is effused. If this slight operation were resorted to, in conjunction with Politzer's air douche, at an early period, I feel warranted in saying that the mortality from scarlet fever would be greatly diminished.

Otorrhea is a very common result of scarlet fever. It occurs in those cases in which, by pressure of the confined fluid, ulceration of the tympanic lining membrane ensues, the muco-purulent fluid finally finding exit through the membrana tympani by ulceration. If the osseous portions of the cavity have become diseased, the otorrhea may last for many years, until the entire membrane and even the small bones of the ear are destroyed. As the result of such ulceration, abscess of the brain is not infrequent. Toynbee, in a chapter upon deaf mutism, says that in

thirty-six cases of scarlet fever, only two patients had ears in a healthy condition. In fifteen cases, the membrana tympani was absent, and in five it was perforated, which indicates a very active disease. "This disease was usually catarrhal inflammation of the tympanic mucous membrane, which extended to the labyrinth.". "Prof. Strickensen, of Basle, in his report upon the Child Hospital in Basle, says five children died of meningitis and encephalitis, and in four cases severe purulent catarrh of the cavity of the tympanum was found, which must be regarded as the point of origin of the disease." Every congestion and inflammation within the middle ear of a child is apt to produce symptoms of cerebral disturbance. "When we remember that process of dura mater, so rich in vessels, which in childhood extends along the whole of the fissura petrosa squamosa to the cavity of the tympanum and the mastoid cells, and through which the dura mater and the mucous membrane of the middle ear come into closer relation in respect to nutrition than is the case with adults" (Troltsch), we can readily understand why any inflammatory action involving the tympanum and mastoid cells may be propagated to the brain.

In the sore throat of measles, the catarrhal inflammation of the pharynx and nasal passages frequently extends along the eustachian tube to the middle ear. The tube is either closed by swelling of the lining membrane in the pharyngeal portion or greatly obstructed by viscid mucus, producing considerable pain and deafness, and the same destructive inflammation in the middle ear which has already been described in connection with scarlet fever. Toynbee mentions a case of catarrh of the mucous membrane of the tympanum the result of measles. "The woman died at the age of twenty-six, and the measles occurred in childhood. She had been subject since that time to a purulent otorrhea. The autopsy revealed an abscess which occupied the whole of the upper part of the right cerebral hemisphere." This case illustrates the danger of trusting to time for the cure of otorrhea, resulting from one of the exanthemata.

Small pox is often attended by severe sore throat, an eruption forming upon the mucous membrane similar to that appearing upon the skin. "The involvement of the throat is usually indicated by excessive salivation, the

secretion increases gradually in quantity, and becomes more and more viscid." "In cases of confluent small pox, the involvement of the throat is much more serious, symptoms beginning often on the very first day of the eruption upon the skin, the salivation produced is profuse, amounting some times to one or two pints during the day."—(Cohen.) "Salivation is not so frequent is children as in adults, but diarrhea takes place."—(Watson.) According to Bentz, Gibb, Cohen and others, the pustules sometimes invade the larynx, producing extensive ulceration there, and destruction of one or both vocal cords. "The pustules are found upon the fauces; the tongue, roof of the mouth, inside of the cheeks, the uvula and the velum palati are thickly studded with them." (Watson.) They may also occur at the faucial entrance to the eustachian tube, first obliterating the opening by tumefaction of the mucous membrane, and finally by contraction of the cicatricial tissue, together with the thickening of the surrounding membrane, the tube may be permanently closed. Although definite statistics are wanting, so far as relates to dissections of the aural apparatus, upon the cadaver of small pox cases, we know, however, from observation, that catarrh of the tympanum, otorrhea and deafness, result from the disease.

"*Coryza*" is a common affection of children. It ordinarily begins as a congestion and inflammation of the schneiderian membrane; the mucous membrane of the pharynx, lachrymal duct and eustachian tube, is also frequently involved. At first the mucous membrane is dry and swollen, but is soon attended by a watery discharge, which has been ascribed to the exhalation of moisture in the "expired breath." "After a short time the discharge assumes a muco-purulent character." This disease is a common cause of "*ear ache*" *and deafness* in children. "Some children seem to be subject to catarrh of the nasal passages, chronic in character, from their very birth." (Cohen.) "The mucous membrane of the nares, fauces and eustachian tube, is thickened, the tonsils are generally enlarged, and sometimes to a very considerable extent. This state of things may go on for a considerable time, and yet admit of a complete recovery." (Dalby.)

"*Whooping cough*," although classed by writers with affections of the larynx and trachea is not infrequently at-

tended by hyperemia of the pharyngeal mucous membrane, eustachian tube and tympanum. As the result of the violent paroxysms of coughing, hemorrhages occasionally occur from the nose and ear.

"*Enlarged tonsils.*"—The influence which these exert as a cause of deafness, has been a vexed question among aurists, as well as among the general profession. The latter had, from an early period, given undue prominence to this affection in its relation to the organs of hearing, while the former, since the statements of Toynbee, have been disposed to the other extreme; and I fear that in discarding the consideration of enlarged tonsils in their treatment of ear diseases, some of the recent aural specialists have been inclined to overlook almost entirely all throat affections. Among the older writers, Saissy, in a chapter upon catarrhal engorgement of the tonsils, says "the degree of deafness is in proportion to the magnitude of the swelling and the quantity of and tenacity of the mucus." Mr. Yearsley, in a treatise upon enlarged tonsils, in 1842, advises the excision of the tonsils for the relief of deafness, and gives cases in which this treatment had been successful. Harvey criticises this practice of Yearsley, and states that "extirpation of the tonsils in the young had led to pernicious results." Wilde does not think that "patients with chronic enlargement of the tonsils are more prone to deafness than other persons with constitutional tendencies." He endorses the views of Harvey. Toynbee says the tonsils are situated from an inch to an inch and a half below the eustachian tubes, and placed between the palato-glossus and palato-pharyngeus muscles, the latter muscle entirely separating the tonsil from the tube. Even should the tonsil enlarge to its greatest possible known extent, it never reaches the eustachian tube. He thinks the operation of excision of the tonsils is very rarely required.

Troltsch, in his admirable work upon the ear, states that hypertrophied tonsils keep up a congested condition of the pharynx by their presence, since they act as foreign bodies and prevent the normal action of the muscles of the throat. They also push the broad portion of the soft palate upward, and thus, but not in a direct manner, press the anterior lip of the eustachian tube against the posterior. He recommends the removal of the tonsils whenever

chronically enlarged, and says he has seen improvement in hearing in recent cases of aural catarrh immediately after their removal. Nearly every physician who has had much experience in throat practice, is familiar with the complaints of pain and noises in the ear from patients suffering from acute tonsillitis. Such patients also suffer more or less with deafness during the attack. When the tonsils are chronically enlarged, I am, as the result of my own practice and observation, decidedly in favor of the removal of a portion from each, either by amputation, or by the use, in young children, of the "London Paste." It is a recognized fact among throat specialists, that their presence is provocative of constant attacks of sore throat, and, while it is admitted that they do not reach by direct pressure the mouths of the eustachian tubes, it is equally well settled that they are starting points, so to speak, of a pharyngeal inflammation which often extends to the mucous lining of the tubes, closing them first by moist tumefaction, and finally by chronic thickening of that membrane and the subjacent tissues. When the tonsils are greatly enlarged, they may also interfere with the free action of the tensor and levator palati muscles, which, by their contraction, open the eustachian tubes.

Diphtheria, as a Cause of Deafness.—It is not certainly known whether diphtheritic exudation takes place upon the mucous lining of the eustachian tube or within the cavity of the tympanum, but a number of cases have been reported in which inflammation of the middle ear accompanied or resulted from an attack of diphtheria. Although no cases have come under my observation, I should expect that paralysis of the muscles of the throat from that disease would produce a lax and open condition of the eustachian tube, and thus cause deafness.

Syphilitic sore throat is not uncommon with infants and children. When not hereditary, it is ordinarily communicated by kisses or from the nipples of infected nurses. "From the pharynx, or from the posterior portion of the velum, the diseased process extends to the orifice of the eustachian tube, and often continues along the tube to the tympanum. The inflammation thus excited may be propagated to the intercranial tissue proper." (Cohen.)

Hereditary Syphilis, in large cities of the old world, is said to be a common cause of deafness. Hinton states

that at Guy's hospital it has furnished more than one-twentieth of the aural patients. It makes its appearance between the tenth and sixteenth years, and the great majority of the patients have been females. He says further, "I know no other affection, except fever, which in a person under twenty brings on a deafness so rapidly and so nearly complete."

"*Adenoid vegetations in the naso-pharyngeal cavity.*" Dr. Wm. Meyer, of Copenhagen, has met with 102 cases of this disease in his private practice. "He examined 2,000 children in the public schools for the poor in Copenhagen, discovered twenty of them with the peculiar defect of enunciation, which he calls dead pronunciation, in all of whom he met with the existence of these adenoid vegetations. Dr. Meyer states that he has met them when they almost completely filled up the naso-pharyngeal cavity behind the velum, and giving to his fingers a sensation much like a bunch of worms." (Cohen.) These glandular bodies are described by Cohen as being flatish and sometimes cylindrical in shape, often fimbriated, hanging down like irregular tassellated fringes. "They are usually soft in consistency, and bleed freely on contact with a sponge, or even when struck with a stream of fluid projected upon them from the syringe." The above described vegetations sometimes "overhang the cartilaginous portions of the eustachian tube," and by their obstruction induce disease in the cavity of the tympanum.

Diseases of the throat and nasal passages in adults.—In addition to those affections already enumerated, I may mention in the order of their frequency:

1. Chronic Follicular Pharyngitis.
2. Chronic Naso-Pharyngeal Catarrh.
3. Glandular Hypertrophy at the Vault of the Pharynx.
4. Elongated Uvula.
5. Ozena.
6. Tumors of the naso-pharyngeal region.

It is not my purpose to enter into a detailed description of these affections. This may be obtained from any of our recent works upon the throat.

Chronic follicular pharyngitis is an affection much more common than is generally supposed. It is usually met with after the 20th year, and may continue, without treatment, indefinitely. It is seldom attended with much pain,

and is often unnoticed until it has existed for some time. An increasing dryness of the throat, particularly in the morning, often a sensation of some foreign substance, as a hair, upon the back part of the throat, or in the posterior nares, the desire to expectorate thick and tenacious mucus, together with a general feeling of discomfort, at last impress the subject with the fact that he has some disease of the throat.

All classes of persons are subject to chronic follicular pharyngitis, but preachers and other public speakers, singers and school teachers are considered especially liable to it. I have met with several cases in my practice among school teachers. It has been called "clergyman's sore throat," but Cohen thinks they are only more liable than other persons, by reason of their exposure to frequent changes of temperature. A dry and shining appearance of the mucous membrane of the throat is called pharyngitis sica; it occurs only among middle-aged or elderly people.

Chronic follicular pharyngitis is one of the most common causes of partial deafness, coming on at any time after twenty or twenty-five years of age. The number of persons who are more or less deaf from this cause, can only be appreciated by those who have made throat and ear diseases a special study. If any general practitioner will take the trouble, however, to systematically test the hearing of such throat cases, and also to carefully examine the throats of patients complaining of dullness of hearing, he will be convinced of the frequency of the co-existence of the two affections.

Chronic Nasal Catarrh.—This disease prevails extensively in this country. Almost every practitioner is familiar with it. The symptoms are those ascribed to an ordinary cold in the head. A dry and stuffed sensation in the nasal passages is succeeded by a free secretion, mucous, or muco-purulent, in character. The mucous membrane covering the turbinated bones, becomes hypertrophied. The inflammation gradually extending down the pharynx, involves the eustachian outlet, which becomes closed by tumefaction, or plugged up by thick, tenacious mucus; the air in the middle ear is absorbed or passes out by exosmosis; the pressure of the atmosphere in the external auditory canal forces the membrana tympani inwards, until sometimes it rests upon the promontory; the

stapes is forcibly pressed upon the membrane of the fenestra ovalis, compressing in this way the fluid in the labyrinth, producing tinnitus aurium and deafness. The lining membrane of the cavity of the tympanum becomes inflamed and ulcerated, as the result of the confined secretions.

Glandular Hypertrophy at the vault of the pharynx is probably most frequently the result of chronic follicular pharyngitis, or nasal catarrh. The "chain of glands extending across the pharynx from one eustachian outlet to the other," becomes enlarged by inflammation. When greatly enlarged, they constitute the adenoid vegetations which have already been described.

Ozena, or purulent nasal catarrh, is most generally associated with more or less deafness, and frequently with otorrhea.

Elongated Uvula.—I have had several cases of partial deafness, and tinnitus aurium, associated with an elongation of the uvula and chronic pharyngitis, which have been relieved by amputation of the uvula and some after-treatment of the throat and ears.

Tumors of the naso-pharyngeal space are of several varieties. Ordinarily they are soft and gelatinous and originate from an enlargement of the acinous glands of the mucous membrane within the nasal passages, and are generally the result of nasal catarrh. They are known as nasal polypi. When they grow from the vault of the pharynx, they are usually fibroid in character. When a polyp is very large, it may press upon the outlet of the eustachian tube and by direct pressure, or by the tumefaction and thickening of the mucous membrane, close its orifice.

Treatment.—The limit assigned this paper will not permit me to enter upon the treatment of the various throat affections described. My purpose has been to call the attention of the general profession to the common association of throat and ear diseases, and, if possible, to induce greater attention to the former in the treatment of the latter.

Appropriate and early treatment of the eustachian tubes and middle ear, together with the treatment of the throat, would, in my opinion, greatly diminish the number of cases of partial and permanent deafness.

DISCUSSION OF DR. BUCKNER'S PAPER.

Dr. W. J. Scott was glad the reporter had made the report as he had, for the reasons assigned by him, for the diseases mentioned were quite prevalent and the paper a practical one.

He did not believe in the universal excision of enlarged tonsils. Although physiologists have not yet told us what their function is, we cannot conclude that they have none. Constitutional treatment will usually suffice to reduce them to a normal size and condition, and should be resorted to more frequently.

Dr. D. B. Smith desired to call attention to the value of cod-liver oil as an agent to accomplish the reduction of enlarged tonsils, especially in children. It must be administered, however, for a long time. Excision of the uvula produces but one effect—it raises the voice one tone, and is hence occasionally resorted to by singers. The tendency of the paper was good, as it must call attention to the cause, and hence result in the prevention of many ear diseases.

Dr. H. J. Herrick thought the paper suggestive, and, in the main, truthful. The importance of the eustachian tube in hearing was very great, hence the seriousness of any inflammation of it. Did not believe that enlarged tonsils caused deafness. Relied chiefly on constitutional treatment, with mild local treatment. Applied remedies locally, by means of a syringe designed for the treatment of post-pharyngeal catarrh.

Dr. W. T. Ridenour agreed in the opposition to excision of the tonsils in inflammation causing obstruction of the eustachian tube. Relied upon local treatment.

Dr. D. B. Smith advocated excision of the uvula, when that organ, by resting on the tongue, produced an uncomfortable feeling which caused the patient to be constantly swallowing.

Dr. Buckner said his doctrine was that when the tonsils became chronically enlarged and resisted all general and local treatment, *then* to excise them. The enlarged tonsils have in them enlarged cysts, lined with a secreting membrane; after a partial excision the cysts usually shrink up and disappear.

Dr. Thad. A. Reamy was decidedly of the opinion that deep incisions or injections, together with proper constitutional treatment, would accomplish all that could be accomplished by removal, and would leave the parts in better shape.

THE USE OF SUB-SULPHATE OF IRON

— AS A —

LOCAL REMEDY,

—BY—

C. S. MUSCROFT, M. D.,

SURGEON TO THE CINCINNATI AND ST. MARY'S HOSPITALS.

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For the last twenty years or more, I have employed the sulphate of iron, the common green vitriol, locally, with very satisfactory results, and it has done so well in my hands I wish to invite the notice of the profession to its virtues. My attention was first attracted to its importance by reading the work of the great French Surgeon, Velpeau, entitled *New Elements of Surgery*, Blackman's edition.

He says: "Impressed with the idea that the inflamed tissues in erysipelas are impregnated with blood and altered fluids, he asked himself the question, if *ferruginous* applications might not have some efficacy upon a disease so superficially situated. In forty cases he determined upon a formula of the *sulphate of iron* in solution of thirty grammes (eight drachms) to above forty ounces of water, or as an ointment of eight grammes to thirty of lard—after having tested it, in various other proportions." It is therefore to this distinguished authority we are indebted for the use of this much-neglected but valuable remedy.

It was in erysipelas I first commenced its use, not, however, trusting in all cases alone to its local effect, and up to the present time have found no other remedy equal to it for the relief of the burning, stinging pain attending

this disease. In most cases, when used early, it has arrested its extension in a few days, and, in some, in less than twenty-four hours, no other remedy being needed.

Noticing the promptness with which sulphate of iron relieved the irritated skin in erysipelas, I was led to use it in nearly all diseases attended with much cutaneous redness, especially ulcers of the lower extremities, both acute and chronic. The result was that many of these ulcers, which had resisted most other forms of treatment, were soon healed. Its good effects in these cases proved so beneficial, that if I were compelled to select but one remedy for their use, it would be this.

A few weeks ago, Dr. W. T. Hord, Surgeon U. S. Navy, was visiting the Cincinnati Hospital, in company with Prof. W. H. Taylor, a member of the Hospital Staff. Upon the Doctor's meeting me he requested I would show him the cases of special interest in my charge. In passing through the wards, he said to me, "Doctor, I see you are still using the iron wash; do you think as well of it as ever? Since I was here last (about three years ago), I have also used it at your suggestion in chronic ulcers and other cases, and, after exhausting most of the remedies, found this to succeed far beyond my expectation." The Doctor has charge of the Charlestown Navy Yard at Boston.

I found from observation that, while it promoted healthy action in the parts affected, it was also disinfectant and antiseptic. As an agent possessing these important qualities, I prefer it to any other of this class. One of its virtues is the absence of the very disagreeable odor belonging to most of the others. It is also a good styptic, arresting many cases of capillary hemorrhage that had been quite troublesome. Its application in such cases is not so painful as the more powerful salts of iron—the per-chloride and per-sulphate. About four years ago, I had charge of an adult female patient who was suffering from the effects of a sloughing phagedenic ulcer of the groin. Previous to my seeing her, there had been repeated large hemorrhages, which could not be controlled by the per-sulphate of iron, which had been used freely. I feared an artery of considerable size had been opened by the sloughing. The patient was excessively anemic, with a very rapid, small pulse, and looked as though she could not live

many hours. This visit was in the early part of the night; finding her in the condition described, I felt at a loss as to the best means to prevent any further bleeding. She refused to submit any longer to the application of per-sulphate of iron, on account of the great pain it produced, saying she "would rather die than be tortured any more." The milder preparation was applied to the part, by filling the wound, which was nearly three inches in diameter, and so deep that the external oblique muscle was plainly visible, with picked lint saturated with a solution of the sulphate of iron, consisting of half a drachm to the pint of water. This is the strength of the solution mostly used. Constitutional remedies were also prescribed. The next morning the patient was much better, and continued to improve until she entirely recovered. The hemorrhage never returned, no other local remedy being used.

In hospital and private practice, I use this wash, applied by compresses, after nearly all surgical operations, no matter what may be their extent or importance. The favorable results following its use fully justify me in prefering it to all others in proper cases.

Recently I have seen several articles in the medical journals strongly recommending the use of the sulphate of iron locally, the strength of the solution, however, being much greater than I usually employ.

For years I have used and recommended this wash (which I call Liquor Martialis) for injections in puerperal fever attended with vitiated discharges from the uterus and vagina, and cannot too strongly urge its application in such cases. I have also met with satisfactory results in cases of chronic vaginitis, combined with an equal amount of sulphate of zinc. For this purpose a much stronger solution is made.

The mild solution has done well in some forms of eczema. In ulceration of the mucous linings of the nose, attended with fetid discharges, a solution ten grains to the ounce of water has relieved the disease in a short time. In cases in which this remedy has been used locally, it is seldom or never attended with pain. The greatest objection to its use is, the staining of the clothes of the patient, or the bedding. This, however, can be avoided by proper care. The discoloration of the skin, which it produces, soon passes away.

A case now under treatment in St. Mary's Hospital illustrates the excellent effects of this remedy:

A young woman, aged fifteen years, was brought into the hospital on Friday evening the third inst. (May, 1878.) She had been dragged under a wagon, by having her clothing caught in the running-gear, a distance of a mile, the horse going at the top of his speed. I saw her about one hour after the accident. She was insensible, covered with mud and dirt, and her clothes torn almost into threads. The face and forehead were covered with deep scratches. The soft tissues over the right eye were crushed and bruised to pulp, so that the orbital ridge of the frontal bone was denuded to the distance of an inch and a half. There was also a deep wound in the eye-brow, to the left of the median line extending to the bone. The upper lid of the same eye, near the external canthus, was also split open parallel to the tarsus three-quarters of an inch. There were extensive brush burns over the hips, legs and left foot, where the skin and areolar tissue were entirely destroyed. There were brush burns on both hands and arms, the right hand being bruised the most.

The wounds about the head and face being thoroughly cleansed, three stitches were applied over the right eye, one to the wound of the left eye-brow, and two to the left eye lid. The wounds of the extremities and hips, after being cleaned, were dressed with simple cerate, and the wounds of the face covered with compresses kept constantly wet with the iron wash. Camphor water and carbonate of ammonia were prescribed as a stimulant, with milk and water for nourishment. Excepting that the patient could swallow, she remained unconscious until the following Tuesday (four days). On the fifth day there was a slight suppuration over the right eye. Thursday, the seventh day from her injury, I found but one of the stitches over this eye has taken effect, and endeavored to bring the parts together by compression. The wounds of the left eye-brow and eye-lid were entirely healed, and the stitches removed. On Friday, one week from the time of the injury, compression doing no good, metallic (iron) sutures were resorted to, to close the large opening over the right eye, and prevent drooping of the lid. At this time she complained of great pain in the left leg, which was in an ulcerated condition on the outer aspect from the

foot to the knee. Erysipelas had set in, the blush of the skin extending nearly round the circumference of the leg. The cerate dressing was withheld, and the liquor martialis applied. The next day the erysipelas and pain had entirely subsided.

Tuesday, May 14th; the wound of forehead healing rapidly, the sutures still holding. The wounds of the other portions of the system all nearly healed.

Sulphate of iron is not only disinfectant, antiseptic and styptic, but it is also a good deodorizer. A mixture of *equal* parts of powdered sulphate of iron, powdered sulphate of alumina and potassa, and bicarbonate of soda, mixed together and appled to a gangrenous wound, will destroy the disagreeable odor immediately, and will also remove the odor left upon the hands after dressing foul ulcers or making autopsies. The sulphate of iron and alum can safely be kept mixed together, but the soda should only be mixed at the time of use. If there is no moisture upon the part to be treated, a little water should be first sprinkled over it. This disinfecting and deodorizing powder is one that I have used for nearly two years.

When the solution of sulphate of iron is applied upon cloth used as a compress, it must be frequently renewed, as the cloth will dry very fast. The rapid drying, I suppose, is from the evaporation which takes place, and when the cloth is once dried it is very difficult to wet it again. On this property of rapid evaporation may depend one of its chief virtues.

These are but a few of the uses to which the sulphate of iron can be applied in medicine and surgery, but as the time will not allow me to extend this subject any further, I will close with a short quotation from the last edition of the U. S. Dispensatory, page 233: "Externally the solution is used in chronic ophthalmia, leucorrhea and gleet, made of various strengths, from one or two to eight grains of the salt to the fluid ounce of water. M. Velpeau has found it an excellent remedy in erysipelas, applied topically in the form of solution or ointment. In forty cases in which it was tried, it cut short the disease in from twenty-four to forty-eight hours." The solution referred to was made as already described, and applied by compresses kept constantly wet. In a few cases convenience required the application of the ointment, made also as before men-

tioned. "An ointment made of one or two parts of the sulphate of iron to sixty of lard, was found by M. Devergie to be particularly efficacious in certain skin diseases, especially in the different forms of eczema. In scaly affections it had no effect."

In my own experience, the ointment is not so efficacious as the solution.

THE CURETTE IN CERTAIN FORMS

OF

UTERINE DISEASE—WITH CASES.

BY

THAD. A. REAMY, M. D.

CINCINNATI, O.,

PROFESSOR OF OBSTETRICS AND DISEASES OF CHILDREN,
AND OF CLINICAL MIDWIFERY, MEDICAL COLLEGE
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It is the purpose of this paper to present, in the briefest manner possible, some clinical experience in the use of the curette in the treatment of certain forms of uterine disease attended by metrorrhagia, and, in some cases, menorrhagia.

This instrument is nothing new or novel. Its use in scraping off the lining membrane of the uterine cavity for the arrest of hemorrhage and other symptoms, has been familiar to all, since its advocacy by Racamier, Nelaton and others. It is highly recommended by Sims, Thomas and other writers at the present day, being extensively employed at the Woman's Hospital of New York.

Thomas (*Diseases of Women*, 4th Edition, page 609,) says of the wire curette, "In recommending the curette as a most valuable resource in the treatment of menorrhagia due to fungous degeneration of the uterine lining membrane, I do so from very extensive and growing experience with it. I employ it frequently in private practice, and in the Woman's Hospital it is commonly used by Dr. Sims and myself. Not only has it proved in my hands,

as Dr. Sims informs me it has in his, a very efficient instrument, but one attended by little danger unless in cases previously effected by peritonitis or cellulitis."

In a conversation had only last year with Dr. Sims, whose genius and skill have given glory to American Gynecology on the continents, he informed your speaker that the value of the curette is more and more apparent to him, and that he employs it in "suitably selected cases with less and less fear of danger from its use."

Dr. Frederic Lente, one of our most thoughtful writers, and a very cautious and skillful practitioner, in an able article on "Intra-Uterine Medication" (*New York Medical Journal*, Sept., 1870.), advocates the use of the curette, giving some instructive cases occurring in his practice, where its use, scraping off the uterine mucous membrane, arrested hemorrhage which had proven rebellious to all other modes of treatment.

I need not detain you by reference to other standard authorities, former and present, who advocate the use of the curette. The time already spent in that direction was thought proper, however, from the fact that extended inquiry among gentlemen in the profession of my acquaintance, quite a number of them gentlemen who see and treat a large number of gynecological cases, assures me that such is the fear as to the danger of employing this harmless instrument, that, in the West, at least, its use in the class of cases referred to is very limited indeed. Only last week I asked the experience in its use of a friend of mine, who is an accomplished physician, with a pretty large gynecological practice. His answer was, "I have no experience whatever with the instrument. I have never employed, nor do I expect to employ, so barbarous and dangerous a practice." Dr. Lente, in the article already quoted from, calls attention to the fact that in an extensive discussion, in the New York County Medical Society, of a paper read before that Society by Dr. Nott—a considerable portion of which paper was devoted to "the arrest of hemorrhage from the uterus, complicating affections of the lining membrane,"—in all the discussion, participated in, as it was, by some of the ablest gynecologists, the curette was not alluded to at all.

So, I conclude that this mode of treatment is by no means generally employed. Indeed I am sure there are

many who, with Aron, oppose the curette, and would, perhaps, join Gallard in styling its use a "detestable operation." *

My own experience with the instrument has been extensive, and eminently satisfactory as to safety and efficiency. Indeed, as to safety, I do not remember, nor have I the notes of, a single case where any serious consequences followed its employment, or were in any way whatever traceable to its use. The following cases, taken promiscuously from my private and hospital practice, will indicate the class of cases in which I have employed it, and the manner:

CASE FIRST.

Mrs. L. was sent to me from Kentucky, in June, 1875, on the advice of a medical gentleman. She was 36 years of age, married, mother of two children, youngest eight years old. Had had two abortions within fifteen months; the last, three years prior to consulting me. No syphilitic taint. She had suffered severe metrorrhagia now for two years, at least. Menstruation prolonged and irregular, so that she may have been considered as menorrhagic also. She was nervous and weak. An examination showed retroversion, second degree, os patulous, mucous membrane slightly granular. A bloody discharge occurred during examination. Sound measurements showed cavity 3¾ inches long. The cavity of uterus had been medicated with tincture of iodine and other remedies for a year before I saw her. She had also had ergot, mineral acids, &c.

She entered my private hospital June 13. The cervix was thoroughly dilated by three laminaria tents, inserted at night and allowed to remain twelve hours. In the morning, the index finger could be passed into the uterine cavity, without difficulty, revealing, what had been suspected, fungous degeneration of the mucous membrane, confined to the posterior wall. The finger was now passed into the rectum, lifting the uterus to its proper axis, and the wire curette passed in, scraping the diseased surface thoroughly. About a tablespoonful of diseased membrane

* Quoted by Thomas, page 609.

and glands was secured. The uterine cavity was wiped out with a cotton mop, saturated simply with a solution of chloride of sodium. The patient was kept in bed for ten days, lying most of the time on one or the other side. Some slight pain was complained of for a few hours. On the following day the temperature was 99°, pulse 84, for three or four hours. On the second day, pulse and temperature normal. This patient was discharged in six weeks, having menstruated normally in about four weeks from date of operation. A retroversion pessary being adjusted, she wore it under the supervision of her family physician for nearly a year, menstruating normally, and in excellent health. She was recently delivered of a child at term.

CASE SECOND.

Mrs. B., of Cincinnati, aged 42, married, mother of three children, the youngest fifteen years of age. Came under my eharge April, 1874. She was inclined to obesity; was now pale and anemic. She had suffered from uterine hemorrhages, sometimes of an alarming character, many weeks at a time for six months. Had been informed that it was "change of life," and that time would make all right. She had, however, had mineral acids, ergot, &c., internally. Had also taken gallic acid, opium, lead, &c. The vagina had been tamponed, as had the uterine cervix, on several occasions. The uterine cavity had not been injected. The patient was confined to bed when I saw her, from copious hemorrhage and its attendant exhaustion. The uterus was found to be enlarged, the os open, the os internum quite enlarged; no polypus. I mopped out the cavity repeatedly with cotton saturated with tincture of iodine, full strength. Subsequently I passed small pledgets of cotton, with string attached, saturated with solution of per-chloride of iron, thoroughly into the uterine cavity, allowing them to remain several hours. This plan was repeated on several occasions. After two weeks fruitless treatment, the symptoms improving and relapsing until my patient seemed in imminent peril, I scraped out the entire cavity with the sharp curette, removing about two drachms of smooth, but much thickened, mucous membrane, much congested and filled with

dark spots, which seemed to be from coagulated blood. Not an unpleasant symptom followed the operation. The hemorrhage ceased completely. She menstruated normally for two periods. The hemorrhage returning again, though not in so violent a form, but recurring at intervals of a few days for two weeks, the wire curette was freely used, resulting in complete and permanent arrest of the symptoms.

This woman has been under my observation ever since, enjoying excellent health, menstruating regularly and normally for two years subsequent to the treatment. She has now passed the menopause.

CASE THIRD.

Mrs. B., of Ohio, came into the hands of a surgeon in Cincinnati, who diagnosed cancer, so offensive and profuse was the discharge, and had been for two years. She was a widow, mother of two children, thirty-three years old. Had been a widow six years. Youngest child was eight years old. In the presence of my private class, last January, I scraped out of the cavity nearly half a tumbler full of glands, membrane and capillaries. Not an unpleasant symptom followed. Complete recovery.

The above cases, selected out of many, narrated in the briefest manner possible, may indicate, in a general way, the conditions warranting the employment of the wire curette. When the diseased condition is confined to the cervix, as in some of the results of chronic endocervicitis, I much prefer Sim's sharp curette. Here the blunt wire is of but little use. I have often succeeded in curing these cases, after a few sharp and fearless scrapings, followed by the judicious application of astringents, tincture of iodine, nitrate of silver, etc., the cure being effected in a few months, whereas, by the usual modes of treatment, years have not accomplished the desired results.

It has been my privilege to examine, *post mortem*, several uteri, two especially within the past four years, the patients dying of other disease while suffering from chronic endocervicitis. The condition of the mucous membrane, glands and capillaries, so graphically described by Farre, was clearly exhibited.

With this condition before us, we can easily understand the rationale of the curette treatment. The capillaries, which are normally abundant, forming a net-work around the utricular glands, have become enlarged. Normally, at times almost uncovered, they are now completely so, and ready to bleed on the slightest provocation. Scraping them off, with so much of the diseased glands as may be reached, at once arrests the hemorrhage, and renders the part permanently less vascular. It is better than if every vessel were ligated.

It cannot, of course, be employed in all cases; never in acute cases. It cannot be employed in all chronic cases. It is best adapted to those of hemorrhagic character.

February 19, 1876, I published in the *Clinic* some results obtained from the use of laminaria tents, introduced within the uterine cavity, in certain form of chronic endometritis. The practice of making pressure in these cases by tents, was first recommended by my distinguished friend Professor William H. Byford, of Chicago. (See his valuable work on the uterus, last edition.) This author, however, uses tents made of slippery elm bark, and not in the same manner as I have employed the laminaria.

The profession owes to Dr. Byford a debt for the introduction of slippery elm tents. In flexures of the cervix, with or without inflammation, they are invaluable. First, they can be introduced in cases where it is impossible to introduce an ordinary uterine sound; second, they can be used with absolute safety in cases where those made of more solid and more distensible material would be unsafe. But where more active pressure is needed, as in these cases of chronic degeneration of the endometrium, the laminaria is better.

I have, since the publication of the *Clinic* article referred to, employed the tent treatment in quite a number of additional cases, with good results. And I do not wish to be understood as now recommending the curette as a substitute for this plan of treatment; but rather that the two plans are adapted to cases differing in important characteristics. Moreover, I have found, in a few cases, the two plans work admirably together; supplementing the curette by the tents, after several weeks had elapsed. But this will seldom be required.

The instrument employed is simply a steel wire, bent

after the manner I here show you. It should be small enough to pass the cervix readily, and also to be freely turned about in any direction when in the cavity. It will also do its work better when small. I keep three or four sizes.

Dilating the Cervix.—In many cases, indeed in most cases, this is not needed, as the cervical canal is in these cases usually patulous; the os internum is generally especially so. If absolutely necessary, tents must be employed; but when they can be dispensed with, we are rid of a source of danger, much greater than any arising from the use of the curette.

Posture of the Patient.—By far the most convenient position, for the patient and operator, is upon the back, on a table or hard couch, high enough for comfort to the operator, the nates brought over the verge of the table, the legs flexed upon the thighs, the thighs upon the abdomen; better still if the hips be elevated by a pad. After Simon, Sims' speculum can now be used with great facility. With a small double uterine hook in the anterior lip, the uterus can, with great care, be brought well down, at the same time this maneuver widens the diameter of the cervical canal, especially externally, and facilitates the entrance of the curette. When the operation is through, the uterus should be carefully reposed.

The patient should be kept in bed, not allowed to get up under any possible pretext, for ten days. Vaginal injections may or may not be employed, as may seem best.

The patient should have the comfort and security of a hypodermic injection of morphia, immediately after the operation.

DISCUSSION OF DR. REAMY'S PAPER.

Dr. J. W. Russell, of Mt. Vernon, considered the paper a practical and instructive one. Thought the specialists should employ ocular inspection of the womb. Had himself had a speculum constructed for that purpose. It was fourteen inches long, bivalve, with a hinge four inches from the handles, so that when opened the blades were

nearly parallel. The extremity of the instrument was made small enough to enter the uterus. Had strong hopes for the future; that we would soon be able to look into a patient's stomach. "If a man can swallow a sword, why cannot he swallow a speculum." [Applause.]

Dr. J. W. Hamilton, of Columbus, spoke of the use of a concave mirror in making examinations with the speculum. Was frequently called long distances into the country, and would be put to great inconvenience and loss of time if he were obliged to wait always for daylight to make his examination. With a good lamp and a mirror of twenty-four inches focus, he had no difficulty whatever; preferred it, indeed, to sunlight.

Dr. Reamy had hoped for more discussion; had made his paper short to allow time for debate.

Specialists already looked into the uterus, by some such means as Dr. Russell had indicated. Ordinarily, however, and for most purposes of diagnosis, the sense of touch was to be preferred. The os should be dilated by laminaria tents, and the uterus crowded down, if necessary by the hand of an assistant. The finger could then be passed completely to the fundus, the womb, if in a state of retroversion, being pressed forward by a finger in the rectum. The finger in the womb would serve as a guide to the curette, which would be found much better than any acids in the treatment of mucous growths.

In reply to a question, as to how long a time it would require to accomplish complete restoration of the healthy mucous membrane, after the use of the curette, the doctor replied that he could not tell. The instrument should not be used until all acute inflammation had subsided. He usually dismissed his patients from bed in ten days. The completion of the restoration was only a question of time; the membrane becomes restored very rapidly, probably in three or four weeks.

A REPORT

On Chronic Inversion of the Uterus,

—BY—

R. L. SWENEY, M. D.,

OF MARION, O.,

WITH A HISTORY OF ONE CASE REVERTED SEVEN MONTHS AFTER ITS INVERSION; TOGETHER WITH AN ALLUSION TO THREE FORMER CASES, VIZ: ONE ACUTE AND TWO SUB-ACUTE, TREATED BY HIM, AS REPORTED AND PUBLISHED IN THE TRANSACTIONS OF THIS SOCIETY, 1865.

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In again coming before you upon the subject of Chronic Inversion of the Uterus, I propose, as briefly as possible, to recall to your minds some of the different modes of reduction proposed and practiced by some of the leading gynecologists of the day, more especially that proposed by Prof. James P. White, of Buffalo, which has been so successfully practiced by himself and others. His method must be received as the one promising most for the complete relief and perfect restoration of the poor suffering victim, no matter how long she may have been subjected to the loathsome, prostrating effects of inversion, to that perfect condition in which she left the hand of her God, with a uterus ready to perform all the functions demanded of it by nature. His method adds another bright page to the history of American progress in gynecological surgery.

Prior to 1858 there seems to have been no mode for the radical relief of chronic inversion of the uterus but that of excision. Otherwise the poor unfortunate woman was abandoned to her fate, with such remedies as would best palliate her sufferings and prolong her life. In proof of this allegation, it may not be amiss to here quote the language of one of our most distinguished authors of that time, Prof. Meigs. In speaking of a case of six months' duration, after describing the feeble and exsanguine condition of the woman, he says: "What are you to do for the patient?

Will you reposit or reinstate this womb? You can't. You might as well try to invert one of the non-gravid uteri on my lecture-room table as to reposit this one. The time is gone by. You have no art or skill, nor any power equal to the performance of such a miracle of surgery as that." (Letters to His Class, p. 232.) All the authorities of the same date regard the reposition of the uterus, after involution, as highly improbable, and do not direct any efforts to be made for its restoration. Churchill, Ramsbotham, Velpeau and Bedford, content themselves by directing such measures as will contribute to the comfort of the woman, and suggesting excision in extreme cases, with all its concomitant dangers, as being the only hope for amelioration.

As to the probability of recovery after excision, I beg leave to give the language of our distinguished American surgeon, Prof. S. D. Gross, of Philadelphia, in his inestimable work on surgery. He says: "When the tumor is hopelessly irreducible, it is not only a source of mechanical inconvenience, but almost incessant hemorrhage, draining the system of blood, and keeping the woman constantly at death's door. Under such circumstances, and as a dernier resort, amputation is occasionally practiced. The operation, however, is generally fatal, the patient dying from shock, hemorrhage, peritonitis or pyemia." (System of Surgery, Vol. 2, p. 840.) Then, giving the history of two cases, one upon which he operated some years before, and another in which he assisted at the operation, and both of which terminated fatally, he says: "I should certainly have no desire to repeat the operation." So that from this experienced gentleman we receive but little encouragement for amputation. Also the other modes of excision, the ecraseur, the galvanic cautery, and elastic ligature, all alike have various objections; and should the unfortunate woman be so favored as to escape all the dangers of excision, having endured all the pain and prolonged suffering and prostration incident to the operation, she is discharged a mutilated and imperfect being, deprived of one of the most important organs of her system, to drag out a miserable existence during the remainder of her life. And yet, strange as it may seem, we find some recent authors, of both books and papers, who are seemingly unwilling to admit the plausibility of Prof. White's method, notwith-

standing the accumulated evidence of numerous successful operations at the hands of different medical gentlemen, but who propose other methods, such as incision through the os or neck of the uterus, gastrotomy, etc.

Thus, Leishman, who is justly regarded as high authority, in his recent work on Midwifery rather hesitatingly admits that "elastic pressure alone, or aided by incisions in the neck, will overcome every case of inversion except when fixed by inflammatory adhesions." Yet he subsequently goes on to describe the method of removing the uterus, "when the doom of the patient seems fixed," and adds that under such circumstances "we can have no hesitation in resorting to a measure so extreme as the removal of the organ." (System of Midwifery, Am. ed., p. 417.) Schroeder, whose work has been translated from the German, and published in this country, dismisses the whole subject by saying: "Reposition is easy as long as the os is not yet firmly contracted; otherwise great difficulties may be met with, and repeated trials, under chloroform, may become necessary." (System of Midwifery, p. 315.) Meadows, of England, says: "When the case has remained unrelieved for many weeks, though attempts should always be made to secure reduction, etc., yet the chances are very greatly against success." (Manual of Midwifery, Am. ed., p. 315.) Courty says that, if reduction be impossible, it will be necessary to resort to palliative treatment or extirpation. Dillinger, in a work republished in London in 1871, says: "Chronic inversion is held to require palliation; if that is vain, removal by ligature or excision." Barnes, of London, thinks it necessary to invent some new operative procedure, in order to avoid "the various methods of amputating the uterus, or of effecting *forcible* reduction, as by Prof. White's method," etc., and accordingly recommends incisions in the neck, and gives a plate of an elastic pessary, to aid in effecting gradual pressure. He also admits the failure of elastic bags in the vagina, as they, when inflated, distend the vagina excessively, and do not acquire that fixed point upon the perineum that should enable them to give the proper force, and in the right direction, upon the fundus uteri. Yet he, who would couple Prof. White's method with excision, and has been pleased to call it "forcible," would place an elastic pessary—an automatic machine—in

the vagina, to forcibly replace an inverted uterus, in preference to one manipulated by a skilled hand, guided by the intellect of an accomplished operator! Has consistency ceased to be a jewel? Show me a man who forcibly reverts inverted uteruses, and I will show you one, the most prominent result of whose operations will be an increase of the mortality list.

A very spirited discussion occurred in the Obstetrical Society of Dublin, in 1873, on the subject of chronic inversion of the uterus, originating from a report of two cases, one of six and the other of seven months' standing, made by Drs. Kidd and Johnson, in which a number of members participated. Dr. McClintock, during the course of his remarks, stated that he was satisfied "that cases would arise where all manipulations would entirely fail to replace the organ." Also the President, Dr. Evory Kennedy, said that, "in dealing with these cases of inversion, they could not classify them merely as acute and chronic." He thought there was "an intermediate stage, in which it was *just possible* to reduce by compression the uterus back into its place, but when that stage was passed, the thing became *impossible*." He looked upon it up to four or five months as not being chronic, and that the facilities still existed for reduction which did not obtain at a later period. He thought that the condition of the tissues would be so altered in the course of ten or fifteen years that it would be totally impossible to effect reduction at the end of that time. (Obstetrical Journal of Great Britain and Ireland, 1873.)

Prof. White reduced one after it had been subjected to all the changes that twenty-two years had produced upon it, the lady making a rapid recovery to perfect health, as attested by herself and her physician, Dr. O. C. Strong, of Colden, N. Y., four years after her recovery. So much for the effects of time.

As to cases in which adhesions have been present, Prof. White reduced two. One case was of six months' standing, where two prolonged efforts, under chloroform, by other operators, had failed, and in which slight peritonitis had followed each attempt. This case was successfully reverted by him at Port Dover, Canada, as published in the Transactions of the New York State Medical Society for 1872. He also states that he encountered this difficulty in

a case of nearly seven years' duration, which he reverted in New Bedford, Mass., on the 15th of May, 1873, notwithstanding that in an early period in the history of the case an *ecraseur* had been applied, and such pressure made as to result in breaking the chain of the instrument, which was followed by inflammation, producing adhesions. The intra-vaginal tumor had been mistaken for uterine fibroid, but upon further examination, after the accident, it proved to be an inverted uterus.

Prior to 1858, as I have before remarked, there seems to have been no mode proposed for the reposition of chronic inverted uteri. At that time Prof. White inaugurated a new era in surgical gynecology, when, on the 24th of August of that year, in the presence of several distinguished medical men, he reduced an inverted uterus of over fifteen years' standing, which was reported to the Buffalo Medical Association, and afterwards published in the *Buffalo Medical Journal* for October, 1858.

This was more than two years after he had taken the initiatory steps by reverting one of eight days' standing, which had been published in the *Buffalo Medical Journal* of March, 1856, together with his views regarding the possibility of reversion at any period.

In regard to the selection of cases for reversion, and the time to operate, I would say there is no time after inversion, no matter of how long standing the case may be, that I would not be willing to make careful and, if necessary, repeated trials, with reasonable hope of success. In fact, I believe there is no case of inversion which is not susceptible of reposition under careful, gradual, well-directed and long-continued pressure. In support of this statement, I here quote from Prof. White's address, delivered before the International Medical Congress, at Philadelphia, in 1876. With an experience of twelve cases, reverted at all periods of inversion, he says: "The result has been, in all the cases encountered, restoration by manipulation on the first trial, and as is believed without serious injury to the tissues, thus confirming the conviction that all cases are curable, irrespective of the duration." And here let me say, with thanks to this gentleman, that it is through his courtesy that I have been put in possession of much valuable information, aiding me in the compilation of this report.

With regard to the best time for an operation, if there are no causes demanding operative interference sooner, for various reasons it would be better after the period of involution is thoroughly complete, which, according to most writers, is at the expiration of from four to six weeks. After this time the patient would not be subjected to the dangers incident to a more recent parturition; as after the lochia have ceased, the womb and abdominal walls become contracted, and the catamenia restored, there surely could not be so great a tendency to inflammation. And again, Priestly, in his lectures on the subject of uterine involution, assures us that, "with the advance of fatty transformations, the uterus becomes in a corresponding degree friable, and continues so until it has completely returned to its normal condition;" and that "it is occasionally so soft and friable, whilst affected by this fatty degeneration, that a sound passed into the uterine cavity might readily be pushed through the uterine walls." Also, Prof. White says: "Whilst in this transition state, undergoing the process of fatty degeneration, prior to involution, it is, I apprehend, far more brittle and liable to rupture than after this change is fully accomplished." So far as my opinion may go in establishing data as to the proper time for operating, having now reverted the uterus twice before and once after complete involution, I would say that I fully concur with the sentiments, as above stated, of these more eminent and better experienced gentlemen. In manipulating the uterus before the period of involution, we find the fundus and body presenting to the hand a soft, doughy, friable feeling, while the os is more solid, contracted and unyielding; and I am fully convinced that I found it more obstinately unyielding and harder to dilate on the ninth day after inversion than I did on a subsequent occasion, after a lapse of ten months and one day. A part of this, however, may be due to the fact, as stated in my former report to this Society, that in recent cases of inversion, reposition commences at the fundus, it dimpling and passing up before the instrument, while in more chronic cases reposition commences at the os, it dilating and folding down over the body while the instrument carries the fundus up and through; thus, in the former case, the os necessarily requires greater dilation than in the latter instance, the fundus and body having by this

time become hard, firm, dense, more elastic and unyielding, while the os seems to have become but little more firm than at first.

As to the time when an inverted uterus ceases to be revertible, or the time when, at least, we should desist from a fair, and perhaps repeated, trial at reversion, I think it only ceases with the life of the victim. In fact, I could not help looking upon a man who, at this day, would excise an inverted womb without first giving it a fair trial for reversion, in the same light that I would upon one who would unhesitatingly ablate a limb in case of an ordinary compound fracture.

Although I have discoursed thus freely in favor of this operation, gentlemen, I would not have you think that it is one easy of performance, or unfraught with danger and difficulty. No; failure, and even death, has been a result. Indeed, I think there are many well informed and otherwise accomplished and skillful operators, whose want of physical power of endurance alone would disqualify them from being successful performers of this operation; for nothing but gentle, careful, well-regulated and long-continued pressure will be attended with success, and that to be performed by an invaginated hand which soon becomes so fatigued and benumbed from repeated vaginal contraction as to be almost beyond the control of the operator.

I have thus far treated four cases: one acute, two subacute, and one chonic. The first three cases were reported to this Society in 1865. The last case, one of ten months and one day's standing, I successfully reverted on the 18th day of July, 1877, the patient making a rapid and complete recovery.

On the 16th of July, I visited Mrs. J. W. Mc., of Morrow county, in this State, who was supposed to be suffering from inversion of the uterus. On my arrival, I found Mrs. M. to be a well-proportioned brunette; age 24 years; 5 feet, 1 inch in height; weight, when well, 120 pounds, though somewhat reduced at that time; her system tolerably well nourished, though remarkably blanched and bloodless; her appetite variable, bowels somewhat irregular; voided her urine with ease, though more frequently than natural; pulse 110 per minute, temperature 100°, and so nervous that she burst into tears upon my referring to her trouble. She had just recovered from the catamenial

flow, which had regularly increased in frequency and quantity so as by this time to give her an interval of from three to five days, and even during these intervals the slightest exercise would re-produce hemorrhage. On examination per vaginam, I found a tumor, in size and shape that of the non-gravid uterus with the fundus down, though not then markedly presenting the rough exterior which I had expected to find, and which characterizes the more recent cases, it then having assumed a more smooth and mucous membrane-like appearance. About one-half inch of the upper portion of the vagina had prolapsed, in an indurated and hypertrophied state, perhaps the result of long-continued irritation in an unnatural position. It being round, the upper portion of the tumor gave it the appearance of a partially expelled uterine fibroid, or that of a partly inverted womb. An exploration with Simpson's sound, however, soon dispelled all possibility of its being a fibroid. While in the vagina, and passed above the tumor, it revealed the upper portion of the *cul-de-sac*; when introduced into the bladder, and the left hand placed upon the hypogastrium, it could be felt in the bladder, with nothing but the anterior wall of the bladder and abdomen intervening; then, by passing the index finger of the right hand high into the rectum, it could again be felt, with nothing but the anterior wall of the rectum and posterior part of the bladder interposing; and, when the hand had been thoroughly introduced into the vagina, during the subsequent manipulations in reduction, the fold disappeared, revealing a completely inverted uterus. Mrs. M. stated that on the 17th day of October, 1876, she was taken in labor, at full period of gestation; that nothing unusual had occurred during her pregnancy, and at that time she was otherwise enjoying her usual good health; that her labor was sudden, rapid and severe, and that, notwithstanding she had but two miles to send for her doctor, who came as rapidly as possible, the child was born before his arrival, but that the after-birth was retained and she was flowing very considerably; that after the doctor came he made some effort to remove the after-birth, but failed; that he then gave her something that put her to sleep, which she had objected to taking, but was told on her return to consciousness, by some of the lady attendants, that it was well she had taken it, for the operation was so

severe that she could not possibly have stood it; that she continued to be sick and confined to her bed, and at the expiration of six weeks, upon asking the doctor what was the cause of her unusually prolonged sickness, he stated to her that her womb had turned wrong side out, like a pocket; and that she had continued to be sick and confined to her bed most of the time since.

On the 18th I returned, and, in the presence of Drs. B. W. Davis, of Marion; J. W. Devore, of Clandon; Thatcher, of Denmark, and Green, Williams and Lane, of Cardington—all of whom were kind in rendering me such assistance as was necessary, I produced reversion in one hour and fifteen minutes. The patient was put partially under the influence of chloroform, though not so fully but she could answer questions rationally most of the time. Much the most painful part of the operation to her was during the introduction of the hand into the vagina, which I think might be greatly obviated by the introduction of the Barnes' Dilator for one hour preceding the operation.

The methed pursued was that of Prof. White, which I deem it unnecessary to again describe, it being fully detailed by me in Mrs. B.'s case, as published in the Transactions of this Society for 1865, and the Cincinnati Lancet for that year.

Mrs. M. made a rapid and perfect recovery, in attestation of which I here beg leave to read you a copy of a letter from her own hand:

"CARDINGTON TP., MORROW CO., O.,
May 4th, 1878.

"MY MUCH RESPECTED DOCTOR AND BENEFACTOR:

"I take pleasure in answering the questions in your letter relative to my recovery. I had so far recovered in four weeks after your operation, that I could be up and around and feel myself well. My first menstruation was in about two weeks after the operation, and continued about one week, and I have been regular since then. I felt fully recovered in two months, and since then have been able to do my own work. I would say that I did not suffer near as much during your operation in replacing my womb as I did in the labor that produced the difficulty.

"I am suffering now, and have been at times, from what the doctors call indigestion, with pain in my stomach, but they do not think that it had any connection with my old difficulty. "Yours, with respect,

"SARAH J. Mc. ——."

Here allow me to advert to the history of my former cases, since the time of their publication:

Mrs. C. K. died some years afterwards, soon after giving birth to a second child, dating from her recovery after the reposition of her womb. As she had removed from our county I could obtain the facts but partially, but learned that she had died about two hours after giving birth to her child, of *post partum* hemorrhage and with an undelivered placenta.

Mrs. L. F. is still living, and has enjoyed good health from last report up to the present. She has given birth to a number of children since, two of them duplicates, and nothing unusual has occurred at any of her labors.

Mrs. B. is also still living and has enjoyed good health from the time of the operation up to the present writing. Soon after her recovery she became a widow, and still remains such, with a uterus well performing all the functions that nature has demanded of it.

Gentlemen, when in contemplation of this paper I expected to be able to lay before you a tabulated report of the statistics in these cases; but finding the material so scattered and inaccessible at this time that such an effort would, in a great measure, prove futile, I have had to content myself short of this design. I, however, would state that the late Prof. George Mendenhall, of Cincinnati, so far as I have been able to learn from a meagre report published in the American Journal of Medical Sciences for October, 1859, was perhaps the first man to perform this operation in Ohio, it being a sub-acute case of sixteen days' standing. The patient made a good recovery. The second, I believe, was another sub-acute case, reverted by myself on the 29th day of July, 1864, of nine days' standing. Also, I believe the first absolutely chronic case to have been reverted by me on the 18th day of July, 1877. Also another by Dr. A. Dunlap, in January, 1878; this was of eleven months' duration, and the patient also recovered.

QUININE AS AN ANTISEPTIC.

—BY—

G. S. FRANKLIN, M. D.,

CHILLICOTHE, O.

QUININE AS AN ANTISEPTIC.

—BY—

G. S. FRANKLIN, M. D., CHILLICOTHE.

There are three well recognized effects of Quinine. First, the antiperiodic, or the antimalarial; second, the antiseptic, or the antidotal to blood poisoning; and third, the antiphlogistic, or the opponent of inflammation. Each of these effects has been made the subject of so many clinical experiments, that no doubt remains as to its action in each line. The antiperiodic effect is that which is best known, and is probably the widest in its application. Here quinine has been honored with the title of a specific, and its discovery marks an era in therapeutics. The antiseptic effect, the special subject of this essay, while having a less extended application than the antiperiodic, is exceedingly valuable to us as medical men, and merits our careful attention.

Sir John Pringle, in an article published in the Philosophical Transactions, in 1750, (*Practitioner*, 1873, p. 323), entitled "Some Substances Resisting Putrefaction," gives a series of observations on the antiseptic power of various substances, including "Jesuits' bark." The author exposed bits of meat, steeped in solutions or decoctions of the various antiseptics employed, to a temperature of 94° —104° F. for several days, and noted the putrefactive changes. He states that "myrrh is twelve times more antiseptic than the best sea-salt," and immediately goes on to state that "Jesuits' bark has the same extraordinary quality."

These experiments and observations of Pringle's were almost forgotten for a century or more, until Prof. Binz

(*Lancet*, 1871, p. 212) again submitted the subject to careful clinical tests and experiments, in order to elucidate clearly a growing impression in the minds of the profession which had resulted from the empirical method, and arrived at results which he published in Berlin in 1868. His conclusions are "that quinine, given when blood-poisoning is anticipated, or when the disease is evidently commencing, in large doses, and continued in proper quantities till the putrid poison is eliminated, will be found very efficient treatment in septicemic diseases." Thirty grains of quinine in twenty-four hours, he considers absolutely necessary, in severe cases even sixty grains. He advises that the quinine be used in a solution acidulated with a few drops of hydrochloric acid: also that periods of remission from fever be made use of to administer such large doses; also that wine and camphor be used coincidently to increase the antiseptic power of the quinine and to diminish its toxic properties.

In 1874, a most interesting discussion took place in the Clinical Society of London, on the subject of Pyemia, during the course of which Dr. Durham related cases of that disease which had been treated antiseptically by quinine. (*Lancet*, 1874, p. 272.) These are his words: "I believe the success of our treatment was owing to the fact that we administered very large doses of quinine. It has happened to me to have seen a great many cases of pyemia in hospital practice; of late years, whenever I have seen the slightest indication of the symptoms setting in, I have immediately given large doses of quinine. Even in cases where pyemic symptoms have been established, and which I have no doubt would have gone on to a fatal termination, the most satisfactory results were often obtained." The doses of quinine given were, in cases at all threatening, thirty grains, repeated in three or four hours. Dr. Gordon, who was sent by the English government to observe the French practice in the Paris hospitals during the Franco-German war, states, in this same discussion on pyemia (*Lancet*, 1874, p. 328), that the French surgeons most frequently used large doses of quinine with success. During this discussion, which was participated in by the best medical talent in England, septicemia and pyemia were not discriminated, but were held to be, at least therapeutically, one and the same disease.

Following Prof. Binz's steps, came Prof. Baxter, of King's College, London, who, in November, 1873, published an exceedingly interesting and exhaustive article, entitled "The Action of the Cinchona Alkaloids and some of their Congeners on Bacteria. (*Practitioner*, 1873, p. 321.) Since the putrefaction processes were discovered to depend on the evolution of extremely minute organisms, and those organisms were declared to be animalcules allied to bacteria, or vegetable germs similar to the penicillium, the field for laboratory clinical experiments has vastly expanded. Premising that Dr. Charlton Bastian (*Lancet*, 1874, p. 262) found bacteria in abundance in the pus flowing from wounds where the temperature of the patient rose above 101° F., and that other observers have found them in the blood of various septic diseases, we are prepared to appreciate the value of Dr. Baxter's clinical experiments. Taking a small measured portion of a fluid known to contain bacteria, he added definite quantities of all the cinchona alkaloids, noted carefully the results with the microscope, and, after varying his experiments in every possible way, sums up his conclusions as follows: (*Practitioner*, 1873, p. 342.) "Quinine is doubtless excelled by other antiseptics, but there is no substance equal to it in antiseptic power which can be introduced into the blood in the same proportions, with the same success, without risk of fatal results."

The therapeutical lessons to be derived from the foregoing are numerous, and eminently practical. Pyemia and septicemia are among the most deadly of all the diseases we are called on to treat. Traumatic pyemia, dissection wounds, puerperal fever, phlebitis, erysipelas, carbuncular fever, variola, scarlatina maligna, diphtheria, dysentery, and, possibly, the severe grades of idiopathic fever, exhibiting symptoms of great virulence, all show examples of blood poisoning. The therapeutical results in such cases have been eminently satisfactory when quinine has been used at the proper time and in proper doses. As to its applicability to puerperal fever, I remember a case where sixty grains were exhibited in twenty-four hours, with the best results. Also, another case where thirty grains, given in one dose, seemed to avert at once a threatened attack. As a prophylactic, in my experience, it has worked admirably. Dissection wounds, *cellulitis venenata*,

are also best treated by quinine in heroic doses. Surgical pyemia the same, as witness the direct testimony of Drs. Durham and Gordon, given above. My own experience in the U. S. Navy, and in large hospitals, is similar, only wherever it was possible, I always use quinine as a prophylactic , to avoid blood poisoning. I found it to be necessary, immediately after amputations, or other large wounds, to exhibit quinine in ten to twenty grain doses, *as a preventive*, and am thoroughly assured as to the good result. Erysipelas responds quickly to the action of quinine, sometimes calling for large doses. Of traumatic erysipelas in my own practice, I have seen almost none, for which I give due credit to the prophylactic treatment. And so in all the other diseases named, all of which at times present abraded surfaces, solutions of continuity, either on the skin outside the body, or on the mucous membrane internally, where blood poisoning shall have its inception.

In the grave fevers, I have had some little clinical experience in yellow fever and in typhoid fever. Whenever especially bad symptoms present, there is no better treatment than the old *empirical* combination of "bark and camphor," or, "quinine and camphor julep;" now, as we have just seen, become truly clinical and philosophical. Whether bacteria are present in the blood in all grave cases of idiopathic fever, as some observers confidently affirm they have demonstrated by the microscope, or not, it is certainly clinically true that such cases frequently present a *tout ensemble* of symptoms wonderfully similar to those obtaining in pyemia itself *pur et simple*. The dusky complexion; the dry, red and glazed tongue; restlessness, shivering; rapid pulse, high temperature, and collapse—are seemingly exactly the same, and in my own mind I have little doubt that the common element in each is blood contaminated by bacteria and other poisons. In yellow fever I have administered the heroic doses of quinine with the best results; out of forty-four cases, losing only one with repeated black vomit, and that case about the first one attacked on board ship. In typhoid fever, I have, thus far, never tried the heroic doses, but the next time the opportunity occurs, and blood poisoning seems to be present, I shall certainly try a twenty to thirty grain dose of quinine, assisting its action with camphor julep. Binz's advice to

give in solution with a few drops of hydrochloric acid, as being better borne by the stomach, might be remembered with benefit.

I ask the members of this Society to join me in clinical observation upon this point—the antiseptic virtue of quinine—and to report to our Society their results.

MENTAL ACTION,

NORMAL AND ABNORMAL

—BY—

J. C. KENNEDY, M. D.,

BATAVIA, O.

MENTAL ACTION, NORMAL AND ABNORMAL.

—BY—

J. C. KENNEDY, M. D., BATAVIA.

In the remarks here offered, I have aimed to exclude all irrelevant matter, and merely endeavor to trace some of the phenomena of mental action, normal and abnormal. In doing so, I shall take it for granted that all ideas originate from impressions outside of the brain, and that these impressions have two sources:—

1st. Objective impressions, which are made on the peripheral extremities of centripetal nerves of the cerebro-spinal system. These impressions are conveyed to the gray matter of the spinal cord, where a portion, or all of them, pass directly to the corresponding efferent nerves, and act immediately on the muscular fibres under their control, without the intervention or even cognizance of the brain, and thereby produce the phenomena of what is called the reflex action of the spinal nerves. Another portion, or all of it, may be conveyed by commissural textures to the peripheral or adjudicating portions of the brain, which, according to Maudsley, is composed of a series of groups of ideational cells, and where the cells of each group have a conformation, polarization and physiological function peculiar to themselves, and each of these groups selects so much and such elements of the impression as it can appropriate; as the lungs select oxygen and the leaves carbon from the atmospheric air, or the liver selects bile, and the kidneys urea from the passing current of blood.

2d. There is another set of impressions, denominated subjective, from their centric origin, which originate in the ganglionic centers of the great sympathetic system of nerves, composed of gray matter, which, Dalton says,

"originate nervous power, and send out impulses by nervous filaments to distant organs," and of course to the brain, through the nervous anastomoses between the cerebro-spinal and great sympathetic systems of nerves. Thus we have two sets of impressions or forces—the objective and subjective—their origin and sources and the fact that they are transmitted through appropriate textures to the brain; whose sole and only mental function is to collate and adjudicate the testimony or impressions brought to it, as the court collates and adjudicates the testimony brought to it; and by virtue of the functions of those groups of ideational cells, forms a decision, and executes that decision through the medium of the efferent, or centrifugal nerves, by virtue of the executive functions of the judicial faculties, commonly called the will.

This being a synopsis of the phenomena attending the formation and development of an idea, or ideas, where all the textures concerned are in a normal condition, it presents the mental aspect or phenomena we recognize as the results of a sane mind, and upon the *perversion* of these functions, caused by an abnormal condition of those textures upon which the functions depend, I shall base my doctrine of insanity, and treat it under three heads:—

1st. The objective is where the peripheral extremities, of the centripetal nerves, and the brain are in a healthy condition for the starting, reception and adjudication of the impression; but some of the textures through which the impression has to pass are in a diseased condition, so as to pervert the true nature of the impression transmitted to the brain, as a false witness conveys a false impression of facts to the court, or as a ray of light produces a perversion of shape, or figure in an object by an irregularly crystalized pane of glass when passing through it, or perversion of color when passing through a colored medium.

The brain having no control over these diseased textures, or the impressions transmitted by them, accepts the testimony as correct, and reasons logically and accurately therefrom, in accordance with the sensation received, which, differing essentially from the one starting at the peripheral extremity, renders the conclusions, and acts resulting therefrom, so anomalous, or inconsistent with the peripheral impression, as to produce those results that we recognize as the results of an insane mind.

A typical case of this division would be that of delirium tremens, where illusions and delusions of all the senses are liable to occur, and yet the reasoning from those delusions be logical and normal. For instance, the subject of the malady has the erroneous impression conveyed to the thinking portion of the brain, that there are actually snakes in his boots, or an assassin is pressing him, when he acts just as reasonably as you or I would if the facts existed with us, that his false impressions create for him, and which shows no difference between the logical, or reasoning powers, of the sane and insane, and that the real difference lies in the different action of those organs or textures, whose function is to receive and transmit impressions to the reasoning or judicial portion of the brain, and *not*, as held by Aitkins, Forbes, Winslow, Tuke, Bucknell, Maudsley and others, "that the instrument through which the phenomena of the mind are expressed, is the part diseased."

2d. The subjective is where these impressions originate in the ganglionic centers, composed of gray matter, which Dalton says "originate nervous power, and send out impulses to distant organs," and which are in a diseased condition; or the impression, though originating in a healthy texture, has to pass through a diseased medium to the brain, and thereby presents to the encephalon an erratic or perverted sensation, or false testimony, as to the existence of outside facts for the cerebral centers to adjudicate. The result would, of course, be the same, as in correct reasoning from false objective impressions.

Typical cases of this form are denominated moral insanity, melancholia, and disease of the affective faculties.

3d. The third division is where there is a diseased condition of the ideational groups of cells, or reasoning portion of the brain, and would be characterized by delirium, either active or passive, furious or muttering, raving or gently wandering—their language denoting a want of coherency and consecutiveness of ideas, which we see alike in the raving maniac and dreamy wanderings of low fevers.

QUININE:

A Prophylactic in Scarlet Fever.

—BY—

CALVIN H. REED, M. D.,

TOLEDO.

QUININE:

A PROPHYLACTIC IN SCARLET FEVER.

—BY—

CALVIN H. REED, M. D.,

TOLEDO.

Have we an antidote to the contagion of scarlatina—an antidote that will neutralize it after it has entered the system?

Ever since the never-to-be-forgotten Jenner discovered the power of vaccine to prevent variola, the profession has been looking for prophylactics against all the various contagious diseases, and against none more earnestly, nor with more cause, than against scarlet fever. We have to deal with no disease more dreaded by the people, and but two, perhaps—membranous croup and diphtheria, more dreaded by the profession, or more fatal to our loved little ones. The mere mention, then, of an antidote to the subtle poison of scarlatina, should be sufficient to arrest the attention of every medical man, at least long enough to *test* and *prove* for himself.

It is well known to some of you that for several years I have held that sulphate of quinine is almost as powerful and reliable in preventing, if given in time, an attack of scarlet fever, as it is in curing ague; that it is as perfect an antidote to scarlatinal, as it is known to be to malarial, poison; and, it may be added parenthetically, when an antidote to the miasma of diphtheria is found, I believe it will be quinine.

It is unnecessary to here mention the various drugs that have been used as preventives of scarlet fever, or to sum

up the results of experiments with them, as the various text-books discuss them fully. Neither shall I undertake to theorize as to the *modus operandi* by which quinine destroys or counteracts its contagion, but shall content myself by reporting, in support of my belief, as briefly as possible, a few instances where it has been used experimentally as a prophylactic, hoping thereby to induce others to try the drug and report the results, that we may come to a positive conclusion as to its power in protecting those exposed from an outbreak of the disease.

It will be noticed that no experiments between Nov. 10th, 1872, and July 8th, 1877, are reported. In explanation I would say I cannot recollect a single failure in that time, though there may have been some, but I kept no record accurate enough for report. Yet it was through the results of experiments during that period of nearly five years that I became thoroughly convinced of the power of quinine to destroy the contagion of scarlet fever, and was led to keep a record, as far as possible, to prove or disprove its value.

In the instances reported, the quinine was given three times a day, for from ten to fourteen days, in doses of from a half to three-fourths of a grain, for a child one year of age, or in doses proportionate. Administration began as soon as exposure was known to have occurred.

INSTANCE FIRST—MAY 16, 1871.

Was called to J. B.'s, 142 Erie street; daughter, aged 6 years, had malignant scarlet fever. Was seen in consultation on the 18th by Dr. Bergen, who confirmed the diagnosis. Death in seventy-two hours after the beginning of the attack.

"Jo," between two and three years, the only remaining child—very much debilitated by chronic diarrhea, was playing in and about the sick-chamber during all the time of his sister's illness, to say nothing of the exposure by fomites. Under such circumstances, we were, of course, particularly anxious about him. With the idea of "toning" him up, that he might better withstand the dreaded disease, quinine was ordered in three-quarter grain doses, three times a day. To our great surprise, and no little satisfaction, the boy escaped the disease altogether.

INSTANCE SECOND—NOVEMBER 10, 1872.

Was called to S. T. S.'s, on S. R. R. avenue. Boy 5 years; scarlatina anginosa. Five children in the family. Parents were exceedingly alarmed on learning the nature of the disease, and anxiously inquired if there was not something that would prevent the other children from having it. Recollecting what had occurred as detailed in instance first, and thinking the result after giving the quinine might possibly have been more than a mere coincidence, I replied there was nothing sure, but I would give them something that, if it would not keep the disease away, would put the children in better condition for bearing it. Ordered quinine thrice daily, in doses varying according to age. Not another case occurred in the family.

INSTANCE THIRD—JULY 18, 1877.

Was called to J. D.'s (Field avenue) child; aged one year; had scarlatina simplex. Disease so mild no medicine was given. The other members had had the disease previously.

INSTANCE FOURTH—JULY 16, 1877.

Called to B. F. M.'s, (Field avenue, neighbor to J. D.) child; aged five years; scarlatina simplex; was exposed at J. D.'s. The disease was running so mild a course no precautions were taken to protect the other members of the family. Result: the other three children, one younger and two older, the mother and grandmother were attacked with the simple form, the father being the only one of the family who escaped.

INSTANCE FIFTH—OCTOBER 13, 1877.

A. B 's, Broadway. Three children in family; ages, eighteen months, three, and four and a half years. Second child had scarlatina simplex. Quinine for others. Both escaped.

INSTANCE SIXTH—OCTOBER 17, 1877.

M. McC.'s, Western avenue; three children in family; youngest, aged two years, had scarlatina simplex. Quinine for others. Both escaped.

INSTANCE SEVENTH—NOVEMBER 15, 1877.

Wm. H., 116 Erie street; daughter, aged 14 years; scarlatina anginosa; grandchild aged 14 months, son of J. E., a policeman, was playing in the room and had been kissing his aunt; four days weaned. Ordered put to the breast again and a half grain of quinine three times a day. Escaped.

INSTANCE EIGHTH—DECEMBER 6, 1877.

Geo. W. H., attorney in Police Court; daughter, aged about eleven years; had diphtheria. Called again December 23; son, aged about nine years, had scarlatina anginosa; on the 24th, daughter was attacked by same form of disease. Ordered quinine for youngest child, aged about three years. Called again January 1, 1878; youngest child had scarlatina simplex, so mild she did not cease her plays during the whole attack.

INSTANCE NINTH—DECEMBER 22, 1877.

Jno. F., 112 Erie street, next-door neighbor of W. H. Two children in family; daughter, aged about 12 years, had scarlatina arginosa; son, aged 14 years; two grains of quinine thrice daily. Escaped.

INSTANCE TENTH, DECEMBER 28, 1877.

Thomas McP., Summer street; two children, aged one and four years; oldest had scarlatina, anginose form; youngest was bottle-fed; ordered for it one-half grain quinine thrice daily. Escaped.

INSTANCE ELEVENTH—JANUARY 31, 1878.

Called during absence from the city of attending physician to A. B. C.'s, Broadway; four children in family, aged respectively sixteen, ten and twins two and a half years. One of the twins had scarlatina simplex, and the other, by the direction of the physician, was taking carbonate of ammonia and ammonio-citrate of iron as a preventive. Ordered quinine for two older, and the twin to continue the

former prescription. Result: seven days after the attack of the first, the other twin was attacked with the fever in its simple form, while both the older escaped the disease altogether.

INSTANCE TWELFTH—JANUARY 31, 1878.

J. H. T., 364 Walbridge avenue; son, aged eight years; exposed at A. B. C.'s; one grain of quinine three times a day. Escaped.

INSTANCE THIRTEENTH—FEBRUARY 1, 1878.

S. B., 284 Colburn street; son, aged about nine years; exposed at A. B. C.s'; one grain of quinine thrice daily for ten days. Escaped.

INSTANCE FOURTEENTH—MARCH 19, 1878.

R. W., 124 Tecumseh street; four children in family; one a son, aged five months, and three daughters, aged respectively three and a half, four and a half, and six and a half years. Rica, the oldest, was very sick from the anginose form of scarlet fever, which was closely followed by diphtheria; gave quinine to second and third daughters in one grain doses three times a day, and to the babe a half grain as often. All escaped both diphtheria and scarlet fever.

SUMMARY.

We have here twenty-nine exposures. Of these, twenty took quinine as a prophylactic. Of these twenty, nineteen, or 95 per cent., escaped. Of the nine who took no quinine, none escaped.

It is evident to every one who is at all conversant with the nature and history of the disease, that the very meagre statistics here given are not by any means positive proof of the drug's reliability as a prophylactic in scarlet fever, since, as is well known, so many who, even in the same family, are exposed, escape the disease. Still, if it be admitted, as I believe it must be, that in any twenty exposures to the various forms of the disease as they run,

there are less than nineteen escapes; or, in other words, that more than one in twenty exposed are attacked with the disease, then *quinine is a prophylactic.*

DISCUSSION OF DR. REED'S PAPER.

Dr. W. W. Jones said that scarlatina was a curious disease. It would sometimes attack every child in a family, and then again would take one only and all the rest escape. Had had children sleep in the same room, and even in the same bed, with one sick with this disease, and yet escape. Thought that the conclusion arrived at by Dr. Reed was probably a *non-sequitur.*

Dr. W. J. Scott agreed with what Dr. Jones had said. Had himself had a similar experience. Brought up, as an illustration, the history of belladonna as a prophylactic in scarlet fever. The statistics of Drs. Ewing and Hardy, of South Carolina, in regard to belladonna, were much more striking and conclusive than were those just presented by Dr. Reed in regard to quinine. Yet scarcely any one at the present day believed in belladonna as a prophylactic. Individual experience in these matters is of comparatively little value.

When we talk of prophylactic treatment of scarlatina, we are liable to be led into false reasoning, and to an illogical conclusion. It has been the experience of every one that not all the children in any epidemic have the disease, nor nearly all who have come in contact with it—whether they have taken a preventive or not. Authors generally regard the disease as contagious; I do not believe it to be so in the same sense as many of the other exanthemata. The *non-sequitur* is, that when one member of a family has the disease, all the others who take a prophylactic, *and escape*, are counted as so many in whom the disease has been pre-

vented; when the truth is, they might not have had the disease if they had not taken anything. However, I will be rejoiced if Dr. Reed's report is found true.

Dr. Reed had not drawn his conclusions from the cases which he had reported alone. For the past five years he could not recollect any failures of the quinine. It was from his previous experiments, therefore, that he had very largely drawn his conclusions. In his recorded cases, twenty-nine persons were exposed; twenty took the quinine; of these one only, five per cent., took the disease.

The cases reported from South Carolina were those of infants, who, as is well known, are not very liable to contract the disease; while his own cases were those of children of an age specially obnoxious to the disease.

He simply advised the members to *try* the quinine; it could do harm anyway, and might, at least, do good.

Dr. J. C. Kennedy reported several cases in which he had used carbolic acid as a prophylactic, and apparently with great benefit.

REPORT

ON THE

PROGRESS OF OPHTHALMOLOGY

DURING THE YEAR 1877.

—BY—

D. B. SMITH, M. D.,

CLEVELAND.

REPORT

ON THE

PROGRESS OF OPHTHALMOLOGY

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BY

D. B. SMITH, M. D.,

CLEVELAND.

GENTLEMEN OF THE STATE MEDICAL SOCIETY:

It gives me pleasure to call your attention briefly to the Progress of Ophthalmology during the past year. No claim of originality is made in this paper, and only those things which I have thought most important have been mentioned, although a great deal has been written, during the past year, on previous methods of operation and treatment. No department of medicine has more earnest workers than that of Ophthalmology, and the results of this work are manifested in the present successful treatment of nearly all diseases of the eye.

During the past year, Prof. J. Hjost has made very careful examination of the process of accommodation in a patient who had complete loss of the iris, as the result of an explosion. The lens remained in normal position and perfectly healthy. He found that during the act of accommodation—

1st. The ciliary processes approached the axis of the eye and became swollen.

2nd. The dark margin of the lens became broader.

3rd. The distance between the margin of the lens and the ends of the ciliary processes did not appear to change.

4th. The changes, both by contraction and relaxation, occurred gradually.

5th. The distance between the margin of the lens and the sclerotic was increased during accommodation, just to correspond to the advancement of the ciliary processes.

These observations confirm the theory of Helmholtz and others.

Dr. D. B. St. John Roosa has, during the year, published an exhaustive and very valuable paper upon the relation of blepharitis ciliaris to ametropia. He concludes—

1st. That ametropia is the condition of most eyes afflicted with blepharitis ciliaris.

2nd. When blepharitis is associated with errors of refraction, the cure of the edges of the lids is very greatly facilitated by the correction of the ametropia.

3rd. Paralysis of the accommodation by atropia will often, without other treatment, very greatly relieve the blepharitis that is associated with ametropia.

4th. Patients suffering with blepharitis will often ignore the presence of any other affection of the eyes than that of the edges of the lids, and deny that they suffer from ametropia or conjunctivitis, only complaining of the disease of the margins of the lids even when the error of refraction is so marked that we would naturally expect quite serious results from its non-correction.

5th. Hypermetropia is the error of refraction most often associated with blepharitis ciliaris.

Out of thirty-one cases in private practice, he found only five cases with normal refraction. The variety of blepharitis, to which his statistics refer, is one of true hypersecretion of the hair follicles and tarsal glands, attended with the formation of crusts and ulcerated points together with hyperemia. Dr. Roosa advises the correction of the ametropia in all cases where it exists.

Prof. J. Michel has lately treated successfully several cases of paralysis of the eye-ball by gentle traction. His treatment consists in taking hold of the paralyzed muscle at its insertion, with a pair of forceps, and drawing the eye-ball as far as possible in the direction the muscle would move it and then bringing it back to its original position.

This manipulation is repeated for two minutes each day. The improvement is gradual, and is noticed daily. Immediately after this practice, the muscle moved the eye to two lines, but gradually effected less. By continuing this practice five weeks, the function of the paralyzed muscle was completely restored.

If this treatment proves as successful in the hands of others, it will prove of great value in a class of cases where heretofore we have been too often unable to establish muscular contraction.

Dr. Hirschberg has lately made extensive examination of the fundus of the eye in cases of anemia, and thinks the generally received impression, that in anemia no changes are seen with the ophthalmoscope, is incorrect. Although seldom seen in the eyes of the lower animals, changes may often be seen in the human eye in anemia.

He found the papillæ pale, although the vessels retained their normal size, and in high degrees of anemia he found a shining white papilla, as in atrophy. The vision remained normal, unless white exudations or bloodspots were present. In chronic anemia, the disk becomes hazy white, and the central reflex streak in the vessels is indistinct. The blood-vessels are narrow, and cannot be followed far towards the periphery. Hemorrhages and grayish exudation spots occur. In the erect image, the disk is clouded in radiating streaks, and the vessels appear slightly veiled. When this condition exists, patients often die. In anemia from exhausting hemorrhage, neuritis occurs, and the papilla spreads at its edge without appearing swelled, the retina is cloudy, which is more marked in the periphery and near the yellow spot, and many fresh red blood-spots are seen. The loss of vision is great, and often in a few days absolute amaurosis occurs. Dr. Hirschberg thinks that, although these changes occur, it is often at a time when the oculist is not likely to see the case, and that this, together with the difficulty of examination, has led to the former mistaken opinion.

Dr. Galezowski has recommended the salicylate of soda in rheumatic iritis, after repeated trials of the remedy. He claims to be able to obtain better results in one week with this remedy than he obtained formerly in weeks. The disappearance of the pain and redness, and the rapid absorption of the plastic exudations, are very remarkable,

and the disease is much more rapidly combated than by any other remedy. This disease is one of frequency, and is always attended with danger on account of the extensive exudations which result in posterior synechiæ, and hence the discovery of so efficient a remedy will be gratefully received by the profession. In irido-choroiditis and irido-cyclitis, the salicylate of soda acted with equal effect. This remedy has proved of great value, also, in all other diseases of the eye dependent upon a rheumatic origin.

Dr. M'Keown has described a new operation for the treatment of detachment of the retina. He lifts up a conjunctival flap and exposes the sclerotic between the internal and inferior recti, after which he cuts out a piece of both the sclerotic and choroid about one-twelfth of an inch in diameter. The conjunctival flap is afterward secured by a suture. A considerable quantity of fluid will be evacuated. It is unfortunate that Dr. M'Keown has had but one case upon which he has operated. The immediate result was very satisfactory, as the patient's vision improved from mere perception of light to that of counting fingers at three to four feet, and seeing distant objects. The detachment retarded. In less than a month the perforation had closed, and vision was again lost; but returned permanently after a second operation.

Dr. Wecker has recently recommended the introduction of a gold thread through the eyeball, for effecting continued drainage, in cases of detachment of the retina.

This is intended to take the place of the needle puncture of Nichel, Arlt and Kittel, and also the puncture of Von Grefe with cutting through the detached retina in order to establish an opening through the retina into the vitreous.

Wecker passes a small gold wire, one-third of an inch long, through the sclerotic and choroid, into the detachment and out again, and fastens the ends by twisting them securely. The exposed end is allowed to lie under the conjunctiva. He has not yet given us the results of his twenty-six cases, but recently Cohnheim has employed this method in four cases, with marked benefit. This operation prevents increase of the detachment, and some vision is often restored, although color blindness remains in the detached portion. Should this prove a safe and efficient remedy in these cases, it will be most highly

prized, as we must certainly at present look upon all former methods of treatment as nearly hopeless.

Wecker has also recommended continual drainage in cases of glaucoma, by means of the same fine gold wire. He even thinks it more efficient than iridectomy in some cases, and would use it especially where an iridectomy would be dangerous or inefficient. He advises it particularly in cases of absolute glaucoma, with atrophy of the iris, abolition of the anterior chamber, and in great hardness of the globe, and excessive pain. Also in hemorrhagic glaucoma, when the sudden relief of the tension by incision would cause rupture of the intraocular vessels. He would also use it when a broad iridectomy does not relieve the great tension.

Although American oculists have not had much experience in this method, yet it is not looked upon with favor.

The same author has employed catgut, also, for this drainage. The catgut is first soaked in carbolated oil, and then dried. A single or double thread of it is then passed through the eye-ball and tied. In children it falls off in three or four days, and in adults in six or seven days. Active filtration occurs at points of exit and entrance, which reduces the tension rapidly.

Mr. Charles Mercier, Demonstrator of Anatomy at the London Hospital, has made careful note of the movements of the eye-ball in coma. These movements he found were always uniform, whatever might be the cause of the coma. In coma the eye-balls move irregularly and independently of each other, divergence is often noticed, movement of one eye and then of the other is frequent. These movements were always slow and rolling, although often uncertain, unnatural, or inconsistent. This peculiarity was so uniform that it furnished most reliable means of differential diagnosis between coma and any other nervous condition either real or simulated.

In profound anesthesia from chloroform, these movements furnish a certain guide to narcosis. In anesthesia from ether, they are not as likely to exist, as there is not produced so high a degree of brain paralysis.

Dr. H. G. Cornell has recommended the forcible stretching of the sphincter of the lids, as a substitute for canthoplasty. This plan of treatment suggested itself to him

from the acknowledged value in cases of fissure *in ano* of stretching the sphincter ani. Obstinate spasm of the lids is a great impediment in the treatment of many corneal and other difficulties of the eye, where great photophobia is present, and the forcible and repeated stretching sets the sphincter at rest.

This may be done with the ordinary speculum, or even with the unassisted fingers, and should be repeated daily until the muscle is set completely at rest. I have no doubt that this manipulation will save many patients from the necessity of submitting to canthoplasty, which we shall all be glad to avoid, as it leaves at best some deformity.

M. Hattenhof has made extensive experiments during the past year in the use of strychnia in defective vision, and concludes that it usually improves vision in functional disorders and also in many cases of organic lesion. Its action was especially favorable in amblyopia with central scotomata, in pigmentary retinitis, in amblyopia connected with anemia, in reflex trigeminal irritation, in paralysis of the cervical sympathetic, and in impaired vision from excessive use of tobacco or alcohol.

Strychnia is of considerable value in accommodative asthenopia, and of some value in paralysis of the muscles of the orbit. He found it of little value, however, in atrophy of the optic nerve.

Mr. B. Thompson Lowne has lately made extensive experiments on the quantitative relation of light to the sensation produced by it. He takes it for granted that the vibrations of ether are transferred to the molecular structure of the rods and cones, probably as stationary waves. He believes that he has demonstrated by actual measurement that the resulting sensation of light corresponds to the momentum and not to the energy of the vibrations.

R. H. Swauzy, of Dublin, has treated four cases of amblyopia with inhalations of nitrate of amyl, in ten drop doses, repeated at various intervals, with marked improvement.

Dr. Galezowski has published an exhaustive article on migraine of the eye.

Dr. Wecker is emphatic in praise of the neutral sulphate of eserin in the treatment of certain corneal affections.

Eserin has antiseptic properties, and also prevents trans-

udation of fluids. A one per cent. solution is dropped into the eye every hour or so. He advises its use—

1st. In cases of corneal ulcers with abscess and hypopyon after having opened the abscess and evacuated the anterior chamber of pus.

2nd. In ulcus serpens, especially, after making corneal incision.

3rd. In suppuration of the corneal wound after extraction of cataract.

The solution should be made fresh every day in summer, and every three days in winter. The present high price of eserin will prevent its general use until cheaper.

Eserin has recently been used by many oculists to reduce ocular tension in acute glaucoma, with most gratifying results in many cases.

Dr. L. Manthuer recommends the division of the sclerotic in front of the iris as a substitute for iridectomy in glaucoma.

The pupil is contracted by eserin, and then a Grefe knife is entered just behind the edge of the cornea and made to transfix, just as in Wecker's method of forming a scleral flap in extraction of cataract. The knife should cut its way out slowly, to avoid prolapse of the iris and too sudden relief of intra-ocular tension. Eserin is then applied every three hours to keep the iris contracted. Iridectomy is sometimes rendered necessary during the operation, on account of prolapse and inability to return the iris.

Mantheur thinks the value of iridectomy in glaucoma is due to the sclerotomy, and not the iridectomy. He would recommend this operation in hydrophthalmus.

Your time will hardly permit me to call your attention to all that has appeared within the last year on Ophthalmology.

Dr. H. Culbertson has published a valuable paper on the detection of paralysis of the ocular muscles.

Dr. Charles N. Bull has made an interesting contribution on congenital syphilis.

Dr. A. Bergh has written on the therapeutic use of electricity in Ophthalmology.

Drs. Norris and Shakspeare have given us a most excellent article on the Anatomy of the Human Retina.

Dr. Loring has made still further improvements in his

ophthalmoscpe, which makes it the most convenient one for the pocket now in use.

Our journals are full of interesting cases of operations upon the eye.

Although the past year has not been as marked by novelties in treatment and operation in this specialty as many former years, still I think all will admit that it has been one of real progress.

Diseases of the eye were never treated with more success, and operations never presented better results, than at present.

DISCUSSION OF DR. SMITH'S PAPER.

Dr. J. W. Hamilton thought the profession had been derelict in its knowledge of Ophthalmology, and much needless suffering had been endured in consequence.

Many troubles of refraction result in diseased lids, headaches, and many other nervous manifestations. There was great ignorance of this matter in the profession at large. Specialists knew of its importance, and had for years, but general practitioners did not. An error in refraction, putting the muscles of accommodation on the stretch, rendered necessary a constant effort, which could not fail to become painful and finally induce disease. There was a great deal of unrecognized trouble of this kind growing out of our present system of public schools.

A few years ago a boy was presented to him with strabismus; an examination of his eyes led to the discovery of hypermetropia; with No. 24, his vision became perfect, and the strabismus disappeared. Two years ago this same lad came to him again complaining of headache. There was no complaint as to his eyes. During the vacation, his headache disappeared, but only to return again on his return to school. Hypermetropic glasses were again applied, and the headaches at once ceased. Many such cases had occurred in his practice.

He desired to impress the importance of this matter upon each member present, for with them was the remedy.

Dr. Buckner wished to indorse what Dr. Hamilton had said. He had had frequent occasion to make similar observations in his own practice.

He believed that the greater proportion of cases of blepharitis ciliaris depended upon errors of refraction, and that such cases were at once relieved and cured by application of the proper glasses.

Opticians resemble druggists; they can grind the glasses, but cannot make a diagnosis. The latter belongs to the specialists.

Dr. X. C. Scott doubted that the production of blepharitis ciliaris depends on errors of refraction, and, if so, the cases were the fewest in number, and not, as the paper stated, in majority. He doubted if any case could be produced by errors of refraction, and no other cause exist.

In reference to the use of the sulphate of eserin, from this report one would think that this remedy was the panacea for all diseases affecting the eye; he could not understand why it should be recommended for diseases when the indications were so diametrically opposite. As he understood the physiological effect of eserin, when applied to the conjunctiva, it produced contraction of the pupil; therefore he could not understand why it should be indicated in glaucoma, for with contraction of the pupil there was an increase of intraocular tension—an event to be shunned. He could understand that when the pupil was greatly dilated, as it is sometimes in glaucoma, eserin could be of use by contracting the pupil, for then the contracted iris would act as a shield and prevent the danger of wounding the lens and producing traumatic cataract. In no other condition, or for no other purpose, could he believe eserin indicated in glaucoma. Also in ulceration of the cornea, eserin was not indicated unless there was danger

of perforation at the peripheral portion of the cornea, and with it prolapse of the iris. In such a case eserin would be indicated, for by contracting the pupil the prolapse would be lessened or prevented. In any other condition of the cornea, atropia should be employed, as its physiological effect was to act as an anodyne to the corneal nerves, dilate the pupil, put the intrinsic muscles of the eye at rest, and thus lessen the intra-ocular pressure, placing the membrane in a better condition for taking on a reparative process.

REPORT ON THE

PROGRESS OF MEDICINE,

—BY—

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Appreciating the honor conferred by the President when he appointed me a committee to report at the present meeting of this Society on the Progress of Medicine, I approach the duty with misgiving, lest the value of my work shall not be commensurate with the compliment.

From the extent of the field of research, the mixture of old ideas with new, the fact that much which has been published is in a crude shape, and has not been proven by the touchstone of medical science, the concurrent testimony of the many, compared, pruned, and presented in concise form, it is difficult to frame a comprehensive and satisfactory report of the progress made in medicine during a single year.

Although there has been no marked advance or discovery since your last meeting, there are everywhere indications of progress in the publication of new works, the close investigation of unproven opinions, and the application of established facts and principles. Very little has been done in the way of original investigation.

The profession is to be congratulated on the steady advance of State Medicine and Hygiene. Principally through the influence of medical men, many of the States have for years had Boards of Health, and one or more every year realize the importance of such commissions from the results of the

labors of those already established. The reports of the Boards of Health of Massachusetts, New York, Michigan, New Jersey, and Illinois, each contain papers on etiology, the history of local epidemics, climatology, drainage, food, etc., equal in excellence to the papers in similar reports published by the European governments.

The General Government, except in the establishment of quarantine, statistics from the census, and the signal service, has done nothing in this direction; but it is not too much to hope that Congress may soon create a department of health, independent or in connection with some other department. Such bureau, in connection with the State Boards, would develop information with regard to climate, soil, winds, moisture, elevation, the prevalence of endemics and epidemics, mineral waters, etc., of incalculable value to the profession, and to the people at large. It might be proper for this Society to agitate this subject through the Congressmen from Ohio.*

The report of the Illinois Board of Health contains the law recently enacted, through the influence of the Board, by the Legislature of that State, for the better regulation of the practice of medicine and surgery. This law is stringent, and has had greater effect than similar laws have had elsewhere. It has caused many gentlemen of the profession to search diligently for forgotten diplomas and certificates, and those who were in lack of such important documents to go before the State Board of Examiners, or to the schools, in order to supply their deficiencies. It is stated by good authority that six hundred practitioners of various pretensions have, in consequence of the enforcement of the law, left the State for more genial climates. Some of these travelers have come to Ohio, where there is neither a Board of Health, nor an efficient enactment for the regulation of the practice of medicine and surgery. While the Illinois law has proved a hardship and worked unjustly in some instances, it has undoubtedly, on the whole, been wholesome, for, as proven by the sudden departure of the six hundred, there were in Illinois, as there are in Ohio, men whose status in the profession was, to say the least, equivocal. It was in-

*Since the above was written Congress has passed a bill creating a National Quarantine with a central bureau at Washington.

tended to reach such. Would that its provisions extended to us!

The State of Kentucky established recently a Board of Health, all the members of which are regular physicians, of known learningand talent, whose forthcoming report will surely attract attention, and prove beneficial to the Commonwealth which has displayed wisdom in the selection of such men for so responsible a duty.

An attempt was made, during the adjourned session of the last legislature, to establish a Board of Health in Ohio; but, so far as appears, the effort was nugatory, influences not understood by your committee having caused it to fail. While the State government failed in that direction, it has not been wholly neglectful of the public welfare in regard to matters pertaining to health. Within the year, the vast Hospital for the Insane at Columbus has been completed and opened for the reception of patients, and already contains nine hundred unfortunates. This hospital is the largest in the State, and, if your committee is correctly informed, is the third in point of dimensions in the country, being exceeded by the Asylum at Blackwell's Island, N. Y., and the New Jersey Hospital only. It is substantially built, fire proof, as it should be, elegantly modeled, and is furnished elaborately with all that can conduce to the welfare and comfort of the patients. The cost was one million five hundred thousand dollars, the cost of the furniture eighty thousand dollars; large sums, but not extravagant for a rich State to pay for an institution for the protection and cure of a class of citizens more unfortunate and helpless than any other class. No one has been heard to complain of the outlay, nor is it probable that complaint would have been made had the amount been double; but it may be questioned whether suitable accommodation for an equal number of patients could not have been obtained for less money, and whether the annual cost per patient cannot be reduced without detriment. Further, although many small asylums would be more expensive than a few large ones, it is questionable whether it is best to have such numbers of insane persons under one roof, and under the control and medical management mainly of a single individual, whatever his skill and experience.

The cost of insane asylums, of the maintenance of lunatics, their supervision, their medical treatment, the mode

of commitment, together with some abuses to which the class is subjected under the law, and certain dangers to sane persons from mal-application of the law, have been freely discussed in several of the medical journals during the year. Notably, several editorial articles, suggested, as their author hints, by the pamphlet of Dr. Wilbur on the same subject, published in 1876, appeared in the *New York Medical Record.* Some of the statements in these papers are startling. For example, under date of March 25, the author states that within the last twelve years, the sum of $19,506,000 has been expended in the United States solely for the erection of hospitals for the insane, and that the annual cost of lunatics per capita is $2,000, which is more money than is invested "in dwellings by the average householder," or, "if a family consists of five persons, the shelter of a single insane pauper costs more than six times the amount per head necessary to provide that first element of a home for the earning and tax-paying classes of the community." This is traceable in the main to extravagance in building, for which Dr. Shrady thinks the association of superintendents is responsible.

Quite resently (April, 1878), a paper by Dr. E. C. Spitzka, entitled "Reform in the Study of Psychiatry," was published in the *Journal of Nervous and Mental Diseases*, in which the author takes the ground that there is an organic connection between "psychiatry, or mental pathology, and that branch of general pathology which relates to the nervous system;" that attention to psychiatry, in connection with the study of diseases of the nervous system, is of great interest and benefit to the general practitioner; that the claim to monopoly in the study of mental pathology by "a certain circle" is unjust and not founded upon equity nor upon practical grounds, and, finally, that arrangements should be made to render the study of mental pathology available to the profession at large "as other specialties have been rendered." He claims that the study of mental pathology is no more nor less than a part, and "but a segment of that great system which comprises the ligitimate domain of the general neurologist;" as neurology deals with the whole nervous system, mental pathology merely with a part, and since the anatomical provinces with which the two are concerned bear to each other the relations of a part to the whole, it follows that also

clinically psychiatry is but a subsidiary branch of neurology. The connection is made closer by the similarity in etiology; insanity often arising from the same causes as ordinary nervous disease; syphilis, alcoholism, and trauma, for example, resulting in some cases in neuralgia or functional disorders, and in others in mental aberration. Mental and moral disturbances, while they more commonly result in mental disease, yet now and then cause disturbance of the spinal functions instead. Occasionally the same cause will first develop nervous disease, pain, disorder of function, even paralysis, and ultimately insanity, not from mere coincidence, but as the natural termination of such morbid changes, involving, as they do, in ordinary progress, one portion of the nervous system after another, until finally the cerebral hemispheres become implicated. "The terminal stage of many spinal and cerebral diseases is insanity; locomotor ataxia often makes its exit under the mask of paralytic dementia, melancholia or maniacal delirium," etc. Not only this, but the histological changes often are identical, the seat rather than the character of the lesion determining nervous disease or insanity.

Notwithstanding this intimate relation, these branches of knowledge are not taught in this country in connection, nor is the relation thought of or acknowledged, except by a few scientific men. The lecturer on insanity is not familiar with nervous disease in general, and the neurologist, as a rule, is prevented by an unjust monopoly from considering mental disorder in conjunction with other nervous disorders. Very few teachers of nervous diseases are able to command the material necessary for a thorough clinical and pathological demonstration of insanity, consequently students in general leave the schools to enter practice with no more than the merest outline of text-book knowledge concerning one of the most important branches of study. This, Dr. Spitzka claims, is due to the fact that a number of asylum superintendents—the majority—assume that they, from their position, are the only specialists in psychological medicine, and that they alone have the right to teach this branch in the medical schools. Having exclusive control of the hundred or so asylums of the country, no one has the right, without their consent, even to see an inmate of one of these institutions, much

less to examine and study the nature of his disease, hence the general practitioner and the teacher are debarred effectually from the advantages which would accrue from free access to these hospitals. The Doctor charges that while the superintendents assume to be the only specialists in their department, they are in fact most of them ignorant of what they profess to treat; that the majority are not chosen for their fitness for the positions which they occupy, but through political gerrymandering, disgraceful to all engaged in it. Further, that all, even those who have the requisite knowledge and means at command, fail to utilize the vast field of clinical and pathological study and research lying open in the hospitals for the insane. But few clinical records are made and published, few autopsies are performed, and of these no scientific account is given, often because those who perform them are ignorant even of the anatomical structure of the parts which they profess to examine. When we examine the journals edited by this fraternity of superintendents, and their "annual reports," we find but little original matter, and that of inferior quality. If there is anything bearing the stamp of excellence, it is usually a republication from a foreign journal. The "annual reports" abound in Scriptural, Homeric and Shakespearian references, and fine descriptions of big hogs and strawberries, but contain very little of the kind of knowledge which one might naturally expect to find in such publications.

The author then goes on to criticize the mode of supervision and treatment of the insane, their commitment, the extravagant cost of their maintenance, and the conduct of the superintendents in refusing to abandon their exclusive association and combine with the National Medical Association which they were invited to do. He speaks in decided tone of what he leaves his readers to infer is trickery on the part of certain superintendents in beguiling legislative committees, and in concealing, on occasion, the fact that force and restraining apparatus are used with their sanction and under their direction; accuses some, although he does not mention names, of dishonesty and falsehood, etc. Altogether the paper is remarkable, and contains statements which, if true, are worthy of serious consideration on the part of every medical man in the United

States. I leave the gentlemen of this Society to judge its character by the quotations I have made from its pages. So strong an impression was produced by this and the papers of Dr. Shrady, that the Medico-Legal Society of New York sent a memorial to the Legislature of the State, then in session, and that body appointed a committee to investigate the charges made by these gentlemen.

It has been suggested that the medical management of hospitals for the insane might with advantage be separate from the general business management, those favoring the change claiming that by such an arrangement the medical officers, freed from the distractions necessarily connected with business details, would be able to give undivided attention where it properly belongs, and that better results might be expected. The question of absolute control, which appears to be thought essential, occurs at this point.

The drift of opinion, so far as your committee has been able to ascertain, is in favor of cheaper and smaller, or at least more scattered, buildings, for the reason that a hospital, of whatever dimensions and however constructed, under any system of management, must, within a comparatively brief period, become contaminated and unfit for the purposes of its erection. This applies less to hospitals for the insane than to general hospitals, but it is true of all; hence cheap, temporary structures, which may be replaced without serious inconvenience when no longer wholesome and safe are best for the insane as for fever and surgical patients. If one could command the data to make a comparison between the mortuary statistics of one or more of the "palatial" asylums of the United States and those of the great "krankenhaus" of Leipsic, there is little doubt that the correctness of this assertion would become apparent.

The proportion of medical officers is everywhere too small. Every member of this Society knows that it is folly to suppose that five medical men, as at Columbus, however earnest in duty, can properly care for nine hundred patients suffering from insanity in various forms arising from divers causes, each case a study within itself; particularly when, as is the case in every asylum, the chief medical officer is at the same time the general super-

intendent and chief executive officer, responsible for the conduct of every detail.

On the whole the completion of the Central Asylum is an important event in the medical history of the State, and a very great boon to the class for whose benefit it was erected. From its more ample dimensions, it accommodates the full number accommodated in the old hospital, and a large additional number of patients who, under the old order of things, must, of necessity, have remained in poor-houses and jails, with but meagre comforts, and inferior or no medical attendance. Notwithstanding the great size of this and of the other asylums, there is not room for all the insane of the State. The report of the Board of State Charities shows, including insane epileptics, that more than eight hundred persons remain without adequate provision. This is much to be regretted, for while one lunatic, though a pauper, is without proper care, he is a reproach to our boasted benevolence and civilization. The profession has always been outspoken with regard to such matters, and it is to be hoped it will make itself heard until proper provision has been made for all who are so unfortunate as to suffer from "a mind diseased." No expense honestly incurred can be too great for such purpose, and no people will more cheerfully pay what is needful than the people of Ohio. The great increase of mental diseases forms a startling commentary on the national modes of life, and is a warning to the medical profession of their duty to guard the community against pursuits and habits which tend to disturb the functions and nutrition of the nervous system; further, it proves the correctness of the position taken by Dr. Spitzka namely, that every medical man should understand as thoroughly as possible—first, the diseases of the nervous system, and, secondly, the connection between these and affections of the mind.

No material progress appears to have been made during the year in the modes of treating insanity, but a steady advance is observable in the knowledge of the conditions which result in mental derangement.

It is unfortunate that matters of such importance as measures for the promotion of public health, the management of State charities, and literary institutions, should be under the control of ward politicians and demagogues, such as may be found in every county seeking office for personal

aggrandizement, but under the present system of government and selection of officials it is scarcely possible to suggest a method by which such measures may be placed where they belong, under the control of impartial scientific men. Until the community has become so enlightened that, by common consent, the control of public literary and charitable institutions is kept out of the political cesspool, so that a man who has prepared himself for and has been appointed to the management of that for which he is qualified can have a reasonable expectation of being permitted to observe the results of his labors, and to some extent enjoy their fruits, we cannot hope for much in the way of profitable results. The political time-server is often a "clever fellow," smooth and adroit in all that pertains to managing "boards," "pulling wires," etc., but is not usually fond of purely scientific work, nor much interested in anything which does not pertain to his immediate welfare. Should not this Society endeavor, by all legitimate means, to have appointments in the humane institutions made irrespective of political bias?

The vexed subject of medical education has had the same attention during the past as in years before. Except the effect of the medical law of Illinois already mentioned, the creation of an association of medical colleges, having for its object "the advancement of medical education in the United States, and the establishment of a common policy among medical colleges in the more important matters of college management," and a resolution passed by the Connecticut State Medical Society at its last meeting, requesting its members not to receive as students any young men who do not before hand present satisfactory evidence of good character, preliminary education in the common branches, in mathematics and in Latin, nothing important or new has been offered.

Much is hoped from the College Association which was established permanently in June last, at Chicago. It is thought such an association will promote a more cordial feeling between the schools, bind them more closely together, and promote the welfare of the profession generally, by elevating the standard of professional requirement, increasing the effectiveness of instruction, and securing a more rigid adhesion to the common rules with regard to the granting of diplomas and licenses to practice.

We have already seen the effect of the Illinois law, and the action of the Connecticut Society doubtless will be followed by other societies. Altogether these movements seem to have had a salutary effect. A majority—I regret I cannot say all—of the colleges have joined the Association, and several, following the example of Harvard College, have adopted the graded course of instruction, lengthened the term of pupilage, and adopted stringent rules with regard to requisites for graduation, etc.

Meanwhile the number of students is increasing greatly. Classes generally are large, with a proportional increase in the number of graduates, and the question of how shall those who are to be our successors be educated becomes every day more urgent. There appears to be one solution only, which is that this, like many other questions, must be decided by general public sentiment. The laws of most of the States define with minuteness the responsibilities of the physician, impose penalties for lack of knowledge and skill, but have no word concerning the mode in which he shall be educated; they mulct him in damages, often to ruin, but even deny him the means of obtaining knowledge. In Ohio the practical study of anatomy is criminal, yet the courts expect the medical witness to know that as well as other sciences when called upon to decide questions involving life, honor and property. In the eye of the law the most brazen pretender, the fellow who, with a bottle of worms for a diploma, boasts of his skill on the street corner, is equal to the profoundest scholar. While this remains true, while any man who assumes the title of physician, whatever his qualifications or want of qualifications, is employed without question by the most intelligent people of many communities, and entrusted with the dearest interests of families, while the merest outline of knowledge is sufficient to obtain a respectable position in society and a decent livelihood, so long will there occasionally be a man not qualified who will seek to enter the medical profession, understanding his own deficiencies, and at the same time appreciating that he is the peer of the people among whom he is establishing himself. Therefore, until society demands for the medical man a higher standard of education than now exists, it is to be feared that efforts toward that end cannot

be successful. Educated communities are usually supplied with educated physicians.

It is right, notwithstanding, that, as heretofore, the profession should continue the endeavor to elevate the standard of knowledge and excellence, and it is also appropriate that they should retain the initiative in all measures looking to that end.

I beg to call attention to the extreme frequency of the occurrence of cancer of the stomach in this city and the immediate vicinity. Within eighteen months, twelve cases of this affection have passed under my observation, in my own and in the practice of others, and I have heard of several cases which I did not see. In the majority of the cases with which I was concerned, autopsies were made, leaving no doubt whatever, and in the remainder the diagnostic symptoms were so distinct as to leave little room for error as to their character. The patients were all past the middle age, all males except two, all whites except one; none were natives of the place, and the majority were Germans. None were wealthy, and some very poor. All except two were engaged in laborious occupations. One was a teacher. The duration of the disease, as nearly as could be ascertained, varied from eighteen months to two and a half years. Of the cases in which section was made (eight of the twelve), the form was scirrhus in all except one, in which it was encephaloid. In this case, only a few inches square of the mucous membrane, on the posterior wall near the cardiac end of the organ, remained in the normal state. In three of the eight cases, the disease was seated in the cardiac extremity, and involved the esophagus to such an extent as to cause stricture. The proportion of cases in which the cardia was involved is above the average, and that of stricture of the esophagus very large. D'Epigne's statistics give eight cases in four hundred and twenty-one, and Lebert's nine in four hundred and forty-seven.

During the eighteen months, I do not remember to have seen more than twelve cases of cancer besides these of the stomach. The number, it seems to me, is very large to come under the observation of a single individual in ordinary practice, in so short a time; others, as remarked, observed a number during the same period, so that my experience was not mere chance; the disease must be very

common. Further, so far as my observation goes to prove anything, the proportion is larger than is given by Brinton, who places it one-third of all the cases of primary cancer. I make this statement by way of inquiry: Is cancer of the stomach as common in the State generally as in Columbus, or is it, as has been suggested, endemic here?

Scarlatina has prevailed extensively in various parts of the State during the year, and is now prevalent in certain localities, notably in Cincinnati and Columbus. In Delaware, it assumed the malignant type, and caused many deaths. In Columbus, a number of fatal cases have occurred, mostly, if your committee is correctly informed, from some one or other of the sequels, and not from the disease directly. One case is reported as having occurred in a female seventy years of age, who recovered. In another, there was no perceptible eruption, but all the other symptoms of the disease, including high temperature and ulceration of the fauces, were prominent, and the patient, a child of five years, a male, died in the third week, of convulsions, after free desquamation, the appearance of albuminous urine and rapidly increasing dropsy. Nothing was ascertained concerning the origin of the epidemic, beyond the ordinary mode of propagation. The disease was undoubtedly brought to Columbus from Delaware Nothing new seems to have been suggested with regard to the cause, pathology, or treatment, except that Dr. John Day, of Geelong, in Australia, proposes the use of the peroxide of hydrogen as a means of destroying the contagion and preventing the spread of the disease. Dr. Day also thinks the peroxide an efficient remedy for the control of the symptoms, as well as a preventive, and gives the history of sixty odd cases, with the results, in support of his opinion. He administered the peroxide internally, and applied it externally by inunction at the same time, and continued the treatment, in most of his cases, three weeks. There seems to be a growing confidence, on the part of the profession in this vicinity, in the hydropathic treatment so confidently advocated by the German physicians, and, following the example of the Germans, by many English practitioners. Extremely favorable results have been reported by some gentlemen here from the use of the cold bath, and cold packs, in cases in which the symptoms, including excessive temperature,

assumed a dangerous character. The general tendency is toward the use of remedies calculated to reduce temperature, to keep the ulcerated throat as clean as possible, to support the action of the heart, when needful, and to prevent starvation, rather than to follow the older and still respectable method of aimlessly saturating the patients with drugs.

Dr. Longhurst, in the *London Lancet*, in answer to some inquiries, wrote that scarlatina is most contagious in the febrile stage, up to the full development of the eruption, that the intensity subsided with the fever, and that it is not during the period of desquamation; that the media of communication are the vaporous exhalations from the skin and the breath affecting the air and clothing; that the patient may ordinarily safely rejoin the family at the end of three weeks. It would seem safer to assume that this insidious and destructive malady is contagious at all stages, and better that the profession should adopt some uniform rule with regard to the period of communicability. Opinions like that just quoted tend to increase the confusion already existing with regard to this question, and, undoubtedly, have done harm in and out of the profession. In the present state of our knowledge with regard to the nature of the cause of scarlet fever, it is impossible for one to say when the period at which the disease becomes contagious begins, and almost as difficult to know when it ceases.

Idiopathic pneumonia was unusually prevalent in this portion of the State during the months of March and April, assuming rather a mild type. In a large proportion of the cases, the subjects were aged people. In this, as in the management of scarlatina, the tendency seems to be toward the acknowledgment of the modern teaching—that the disease is specific in character, and probably self-limited, and treatment is governed accordingly. Your committee has heard but little of specific modes of treatment, so common in former years.

Probably, from the exceeding mildness of the winter, an unusual number of cases of typhoid fever were observed in this vicinity during the last two months, mild in type, but presenting unmistakable symptoms.

There seems to have been, during the year, the usual activity of research into the etiology of specific fevers,

and other specific forms of disease. Last year we had reports of the history of an epidemic of typhoid fever, originating from the use of milk which had been contaminated by water holding in solution human excrement, and the valuable lesson was drawn from the several papers on the subject: that it is our duty, on all occasions, to watch the sources of the milk supply for large towns and public institutions, as well as the sources from which private families are supplied. In the *London Lancet*, March 10, 1877, Dr. Stewart, of Barnsly, in England, published a paper entitled, "A New Theory of the Origin of Typhoid Fever," wherein he described an epidemic which he thinks originated from decomposing blood flowing from a slaughter-house. He is of opinion that the putrifying serum of the blood was, in this case, either itself the cause, or that it acted the part of a nidus, or soil, for the growth of the fever germs, supposing, in accordance with the now most commonly accepted opinion, such to exist; and he argues from this that as the disease must have a cause disseminated equally with itself, and as the fever is most common in the autumn, the cause may be found in the privies in the decomposing serum resulting from summer diarrhea, which furnishes the soil for the growth of fever germs, or that the fever arises from germs existing in all the putrifying processes which take place in certain animal fluids.

Dr. Cabell, of Virginia, in a report on the "Etiology of Enteric Fever," read before the American Medical Association, in June last, at Chicago, acknowledges the germ theory of the origin of specific fevers to be the true theory, notwithstanding the fact that we cannot demonstrate the existence of a contagium vivum; but he combats the idea that the germ is always propagated under like circumstances. He inclines to the opinion that a favorable soil for the growth of the germs may be found in decaying and putrifying vegetable matter of various kinds; and also in other animal matter than putrifying human excrement, as contended by most English authorities. He advances arguments in support of the opinion that the fever may originate in the system of the individual attacked by it, and supports the opinion with citations from numerous cases. He also cites cases to prove the contagious-infectious nature of the disease.

Assistant Surgeon Smart, U. S. A., in the January number of the *American Journal of the Medical Sciences*, attributes the typho-malarial fever to the use of water, and more especially to snow water, contaminated with vegetable debris precipitated from the atmosphere. His experiments were made in the Rocky Mountain region, where he found the so-called mountain fever to prevail most extensively during the periods when the streams were swollen with water from melted snow. He thinks that the vegetable remains are collected in the snow before the melting, and thus the water becomes contaminated and unhealthy, more so than water from springs. This from the premises may not be a far-fetched conclusion, but one which will hardly hold good in those regions where malarial fevers (such he considers the mountain fever to be) prevail, but where there is no snow.

These, and further quotations which might be made, prove to us that the etiology of these, as of other specific diseases, is not as yet conclusively established; but that constant and vigorous research, in which the best talent of the profession is engaged, will speedily throw additional light upon this important and intricate department of Science. Meanwhile we can accept the opinions which seem nearest in accord with natural laws and common sense, and await the solution of what now is obscure.

Several cases of typhoid fever were treated by Dr. McBean with coca, not, as he states, because of its stimulant and soothing effect, but because it has been discovered that so long as its influence is maintained, this drug diminishes to a remarkable extent the amount of urea excreted. The increased amount of urea in fevers, according to the discovery of Dr. Sidney Ringer, bears some relation to the increased temperature; or, in other words, denotes, in some degree, the extent of the abnormal waste; when the temperature is very high, the quantity of urea is very large and becomes one of the indications of danger. Dr. McBean declares his experiments to have been successful; that the remedy diminished the quantity of urea and the temperature. It also enabled his patients to sleep, and served, at the same time, to sustain the action of the heart and control pleasantly the symptoms of disordered innervation.

Dr. McBean's observations were, however, confined to

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adopts the use of milk, as already explained, as a comparatively harmless substitute. He has reported one or two cases in which the measure has seemed to prove favorable. We shall await further developments concerning this measure with interest.

The introduction into the system of aliment by hypodermic injection, as lately practiced with asserted success, may be found useful in certain cases in which there is extreme irritability of the alimentary canal, for example, in gastritis and cases of stricture of the esophagus, &c,; the quantity, however, which may be introduced by this method, is so small as to preclude the hope of any extended benefit.

Dr. Roberts, in the *New York Medical Journal*, gives the history of forty-one cases of paracentesis of the pericardium, with a mortality of only fifty-three per cent. This is a remarkable result, and is to be remembered in the management of quickly developed cases of dropsy of the pericardium.

A mode of cure which is just now exciting comment, is "Charcot's metallo-therapy," which reminds us of the once notorious Perkins' metallic tractors, but which, from the accounts given by Charcot, and Burq, and in this country by Hammond, through his lectures, appears to have some effect more than mere influence on the imagination, but one feels induced to place it with the "wonder cures," so common now as in times past.

Of the papers in the report of the proceedings of the American Medical Association for 1877, that of Dr. Martin, of Massachusetts, on Animal Vaccination, naturally, from the importance of the subject, attracts attention. The report is quite elaborate, and is an attempt to prove the superiority of the Bovine over the humanized virus. The advantages claimed are,

1st. The more perfect development of the disease *vaccinia* than can be obtained by virus long humanized, and through this more perfect protection of the system from small-pox.

The author does not deny that humanized virus, even twenty degrees removed from the cow, is protective, but he thinks that taken directly is more perfectly so.

2d. He claims that the advantage and necessity of an

ability to renew the "*stock*" of virus by return to the animal, is great.

3d. Admitting that the common belief that other diseases, as syphilis, &c., are transmitted by vaccination with humanized virus, has but slender foundation, the fact that such diseases may be and undoubtedly are so transmitted now and then, with terrible consequences, and the further fact that it is often difficult to trace the humanized virus to its source and to detect the taint of syphilis or erysipelas when the source is known, forms, Dr. Martin thinks, the strongest argument in favor of animal vaccination.

4th. The animal virus is free from all suspicion of syphilis, and never conveys erysipelas, or itch, or other cutaneous disease; and lastly, is more perfectly protective.

There is nothing new in these views, but certainly the matter is of importance and deserving the most serious consideration. It is to be feared that the profession is apathetic and overtrusting with regard to this subject. The fact that one single case of syphilis has originated in a vaccination is enough to make all agree with Dr. Martin, and join efforts with those who advocate that the Bovine be used to the exclusion of humanized virus.

Such are some of the notes of the progress of medical science which seemed to me to be worthy of notice. Of course they do not embrace more than a small part even of the important additions which have been made to the various departments during the year, but my report is already too long.

In conclusion, Mr. President, I beg leave to call attention to the explosion which occurred recently at Minneapolis, Minnesota, by which several large flour mills were instantly destroyed and many persons wounded and killed. This, though not an item of medical progress, is certainly of great scientific interest, and, inasmuch as it involved limb and life, it comes within the province of the physician.

A flour mill driven solely by water-power would seem to be an unlikely place for an explosion of any kind; yet there are accounts of several such as that which occurred in Minnesota, at various periods and in different parts of the world. No satisfactory explanation of these catastrophes has been offered, although many opinions have been given.

It is known that some of the metals, silver, rhodium and iron, for example, when reduced to a state of minute division, will, at an elevated temperature, when violently agitated, subjected to heavy pressure, or when brought into contact with certain chemicals, explode, or pass swiftly into combustion.

Iron, in the state of fine powder, will burn on the application of a lighted match; silver, in the same state, has been known, when subjected to great pressure, to explode with terrific violence. Careless physicians have ascertained to their dismay, and in more than one instance to their injury, that certain medicines—for example, the chlorate of potassa alone, and also a mixture of chlorate of potassa and tannic acid—will explode with much force, if "brayed too strongly in a mortar."

Somewhat the same properties seem to be acquired by certain organic substances under conditions somewhat similar: wheat flour, which was the chief if not the only agent in the catastrophe under consideration, being a prominent example. In this, as in the case of the metals and some of the chemicals mentioned, the reactions which take place are not certainly known.

The chemists assert that the reactions which render explosion, or quick combustion, possible in such organic substaces, occur through molecular change; that the flour becomes combustible to an extraordinary degree through minuteness of division, and consequent exposure of its particles to the air. That possibly known gases may be absorbed, or that, by contact with the air, and through the steps of decomposition, unknown gases may be generated.

The change in the combustion of iron and silver is probably due to rapid oxidation, and it is possible that the same is true of all other substances, including the finely divided wheat; and that, by the absorption of oxygen by the immense quantity of wheat dust, and subsequent disturbance by jarring, we can account for the terrific accident at Minneapolis.

The following, which was kindly furnished me by Prof. Sidney A. Norton, of the Ohio State University, seems the best explanation of the phenomenon which I have seen:

"1. In regard to the explosion of the flour mills, it seems that ordinary causes of explosion, such as steam

boilers, gunpowder, or the bursting of large wheels, were not present.

"2. No satisfactory explanation can be given, but the hypothesis may be hazarded that it may be due to reactions like the following:

"Matter in a state of fine division is prone to undergo change of some sort.

"A. Finely divided phosphorus, and even metals like iron reduced by hydrogen, or lead reduced from the tartrate, take fire spontaneously in the air. These bodies oxydize.

"B. So also numerous cases of spontaneous combustion are on record, from the gradual oxydization of oily matters exposing a large extent of surface, like heaps of greasy rags.

"C. More wonderful is the tendency of some of the noble metals, when in a state of fine division, to become explosive. This is notably the case with rhodium. It probably does not oxydize, but assumes an allotropic form, or changes its molecular condition.

"D. In any of these cases, a change started in any portion of the mass is communicated with more or less rapidity throughout the whole, just as a spark of fire will explode a ton of gunpowder; or a drop of sulphuric acid a heap of sugar and potassium chlorate; or the touch of a feather nitrogen iodide. That is, a molecular disturbance in one place is likely to be propagated indefinitely, and not only among similar molecules, but also unlike.

"3. The facts are wanting for the discussion of the mill explosion. We may however assume:

"A. The mill probably contained in large quantities among the rafters, gearing, etc., flour in the form of an exceedingly impalpable dry powder.

"B. It is possible that in time this powder had taken on some molecular condition which is still unknown to science.

"C. At all events some shock, some spark of fire, or perhaps a spark of electricity caused by the friction of the belts, began a change in one portion of this dust which was propagated with explosive violence through the mass.

"D. This may have been aided by an unstable molecular condition mentioned above. If the decomposition resulted in converting the dust into gases—imagination can

hardly picture the force that it would be possible to generate.

"4. The recent explosion of a candy manufactory in New York seems to come under the same category. It is true that in this case there was a steam boiler, but from the facts elicited at the coroner's inquest, it appeared that some other cause aided in shattering the building.

"5. Finally. With so wide a field of conjecture, one other cause may be suggested. These finely divided bodies absorb enormous quantities of gases, notably in the cases of platinum black, palladium, animal charcoal, dry clay, etc. May not the molecular modification I have alluded to be really a physical absorption of gases which, by some unknown shock, have been instantaneously liberated in the entire mass? Such an explosion occurs when platinum sponge is introduced into a mixture of oxygen and hydrogen. May not the flour dust first absorb oxygen from the air, and enough hydrocarbons be liberated in time by a slow decomposition, to furnish the requisite conditions for sudden combination and consequent explosion?"

DISCUSSION OF DR. LOVING'S PAPER.

Dr. Thad. A. Reamy said he was much interested in the able paper of Dr. Loving, and would speak to but one point named in it, viz: Medical Education. The Dr. had justly and truly said in substance, that medical education is subject to the law that regulates and governs education in all other departments; education and its standards are always in accordance with the demands made in a community; here as elsewhere medical education follows this law, and its standard equals the standard in other learned professions.

It will be conceded by all that an elevation of the standard must always carry up both pupils and instructors; anything which degrades one class degrades the other. An incident had come within his knowledge during the past year which, to his mind, degraded medical teaching.

There is within this State a medical college wherein, for some years past, clinical obstetrics has been taught partly by cases of delivery in the presence of the entire class. Last winter a case of instrumental delivery was conducted, during all its stages, in the presence of the class.

An irresponsible and ignorant writer in a secular newspaper, learning of the transaction, denounced it in his paper.

A professor in a medical college, a member of this Society, a man well known to the profession of the whole country, commenting upon this clinic in the presence of a large number of the students of his college class, said: "The students who witnessed that delivery could learn no more by it than they could have learned had the clinician taken the woman before them and permitted her to defecate in their presence."

Now, it is true that gentleman does not teach obstetrics, but he does lecture on the "Surgical Diseases of Women," and ventures an opinion on obstetrical teaching. Moreover, as the speaker was the clinician who conducted the case of delivery in question, and was on terms of most cordial friendship, of many years duration, with his critic, no personal prejudices or enmities could be considered as entering into his criticism. It must be accepted as his candid opinion, and therefore guages the standard of his intelligence in this field of study. Think of a medical teacher who cannot appreciate any difference clinically between evacuating the rectum, and the uterus! It can hardly be expected that standards for students can be much elevated with such pitiable ignorance as this in a teacher.

REPORT

—OF—

COMMITTEE ON OBITUARIES

—BY—

B. B. LEONARD, M. D.,

WEST LIBERTY.

REPORT OF COMMITTEE ON OBITUARIES,

—BY—

B. B. LEONARD, M. D.,

WEST LIBERTY.

Another year has passed, and we have convened to carry forward the purposes of our Society. It is fitting to pause for a little time to pay a merited tribute of respect to the memory of those who have fallen in the great battle. Some of our members are here to-day, trembling with the weight of years; others, whose heads time has razored bare, and still others, with whitened locks, who, before another year, may have passed beyond the river, and like the rose that climbed the garden wall,

"Bloom the other side."

For Death, the great enemy of our race, is still in pursuit, and here and there has snatched from the picket post one, another, and still another of our members. Nor will the measure of his insatiated avarice be full until we all shall have fallen before his scythe. There is no bribing death; were it not so, who of us would not have made himself bankrupt a thousand times to save some loved one from the grave? Wealth, royalty, honor, position in life, give no security against the King of Terrors. He will outgeneral us all. We may stay disease and pestilence; we may stem the stormy current of adversity; we may rise to the highest positions in life, and stand as mighty victors in the fore-front of life's great battles; we may carve our names in deep incisions on tablets of immortal fame; we may rise from the cold depths of poverty to the wealth of Cresus; we may gain the wisdom and force of Pericles; we may have such power among men that our word may

become imperious law—but these will all fail us when Death comes. Then the tender tissue that binds our spirits to these tabernacles of clay will be severed, and we, too, shall go down to the grave. When that time comes, let us be ready with our lamps trimmed and burning with such light and force that we may, in the language of that poet of whom America may be proud:

"Go not, like the quarry slave at night,
Scourged to his dungeon, but sustained and soothed
By an unfaltering trust, approach thy grave,
Like one who wraps the drapery of his couch
About him, and lies down to pleasant dreams."

SAMUEL D. TURNEY.

1824. 1878.

Samuel D. Turney died in Circleville, in January, 1878. He was born in the city of Columbus, Ohio, on the 26th day of December, 1824, and was, therefore, 53 years old at the time of his death. He was the son of Dr. Turney, who came to Ross county in the beginning of the present century, and who died when the subject of this sketch was very young. After securing an education, such as is obtained in common schools, he went to Gambier, and entered Kenyon College, where he remained for two years. Having finished his course there, and having a desire to enter the medical profession, he sought and obtained employment in a drug store, where he could familiarize himself with medicines, the implements to be used in after years in the cure of diseases. He then became a private pupil of Dr. P. K. Hull, and attended lectures in Starling Medical College, and finally graduated in the University of Pennsylvania, in the spring of 1851. He began practice in Cincinnati, and continued there until the voice of his country's calamity called for his services on the tented field. Entering the medical department of the "War of the Rebellion" at the beginning, he was commissioned surgeon of the 13th Ohio Volunteer Infantry, and gradually advanced, step by step, until at the close of the war, he was made Lieut. Colonel by brevet, for faithful and meri-

torious services. After all his duties were performed in the army, he returned to his home. He was rightfully greeted by his fellow citizens with the acclamation, "Well done, good and faithful servant!" He found no time for rest, but was constantly employed with the arduous duties of a profession for which he had so well prepared himself by careful and diligent study, diversified observation, and practical experience.

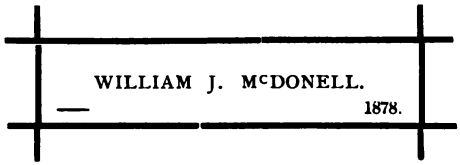
From a memorial written by Dr. J. H. Pooley, from which I have gleaned in the preparation of this paper, we learn that Dr. Turney's practice and physical labors were so great that his constitution became enfeebled to such an extent that he found it imperatively necessary to desist from practice and make a trip to Europe, where he remained for some months. After returning from Europe, he was elected a professor in Starling Medical College—a position he held until the time of his death. He was twice chosen Surgeon General of Ohio by two now ex-Governors of the State.

The example for industry and faithfulness left us by Dr. Turney is well worthy of imitatiou. Who of our number will emulate his example and rise to fill his place?

JAMES SMITH.

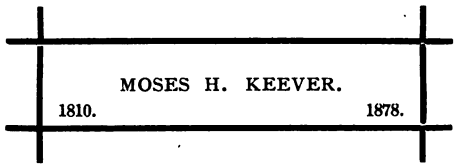
—— 1877.

Died on the 29th day of July, 1877, of typhoid fever, after a lingering illness. From what we are able to learn, he graduated in the Cincinnati College of Medicine and Surgery in 1864, and began practice in Clavington, Monroe county, Ohio, where he soon acquired a good practice and was highly esteemed for his excellent qualities as a citizen and medical practitioner. He became a member of the Ohio State Medical Society in 1876. He was remarkable for his benevolence and charity. He was a fine Bible scholar, aud took great delight in inculcating the doctrines, principles and teachings of that "Book of books" to the young of his town, and regarded it as the infallible rule of faith and practice.



The following is gleaned from a paper prepared by Dr. D. B. Cotton, on the death of Dr. McDonell, and read before the "Ohio Valley Medical Society." Dr. McDonell was born at Portsmouth, Ohio, September 14, 1821. He was the oldest son of the late John McDonell, Esq. He completed his academic course in Augusta College, Kentucky, and was valedictorian of the class of 1841. He soon after commenced the study of medicine in the office of Dr. G. S. P. Hempstead, of Portsmouth, and afterwards pursued his studies with the late Dr. James Shackleford, of the same place. He attended his first course of lectures at the University of Louisville, and received the doctorate from the University of Pennsylvania in the spring of 1845. He at once entered upon the practice of his profession in his native place, and continued there thirty-three years, and until his death—engaged in a large and laborious practice. He never married. He was a member of the American Medical Association, also of the Ohio State Medical Society, and of the Ohio Valley Medical Society. At the time of his death he was president of the Scioto Medical Society. In 1871, when the American Medical Association met in San Francisco, he was one of that happy party who crossed the Rocky Mountains together, and bearded the indomitable Brigham in his harem. At that time he became a member of the Rocky Mountain Medical Society, and was also elected an honorary member of the California Medical Society. In 1863, he received a commission from President Lincoln as U. S. Civil Surgeon, and acquitted himself of his duties in a most creditable manner. He was a devoted member of the M. E. Church at the time of his death, and was both steward and trustee of the Bigelow Church of Portsmouth. His life was in perfect accord with his Christian profession, modest and unobtrusive, simple and gentle in his demeanor. He was particularly noted for his agreeable manners, genial disposition, correct habits and high moral character. Surrounded by a large circle of friends, who had known only

to admire and love, at his death all arose to do him honor. The Catholic Sisters voluntarily, and by permission of the Church authorities, visited the residence before the remains were removed, and although the deceased was a confirmed Protestant, they united in prayers over his casket for the repose of his soul. Such a blending of creeds was never witnessed there before, when Catholic and Protestant united in prayers over the dead. The profession of medicine he loved, cultivated and was devoted to with his entire and undivided mind. As a physician he was successful in an eminent degree, ever attentive, watchful and patient in his ministrations, and carrying with him into the chamber of sickness an atmosphere of cheerfulness and sunshine that often robbed sickness of half its terrors. He died very suddenly, on the morning of the 23d of February, 1878, of disease of the brain, attending to his business until almost his last moments. It was this too intense devotion to his profession that sacrificed him on the altar, and he suddenly, without a struggle, fell into that sleep that knows no awakening here. When apprised by the physician, a few moments before his death, of his condition, he replied that he would "be better in the morning." It has been said that "the place for a man to die is where he dies for man." We admire a man who falls at the post of duty, physician as well as soldier. It was his excessive toil, by day and by night, which probably caused the disease which so suddenly arrested his career. In laboring to parry the weapon of death from hearts of others, he exposed his own breast to the fatal dart. Dr. McDonell was faithful to his trust, and when he passed away, the community, the profession and the church mourned a common loss.

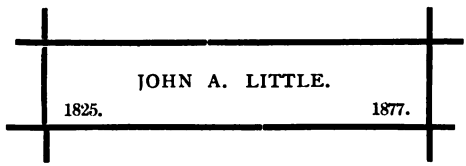


Was born in Warren county, Ohio, April 28, 1810. He was educated at Miami University, and Augusta, Kentucky, and studied medicine with Dr. Joshua Stevens, of

Monroe, Butler county, Ohio, and graduated at the Medical College of Ohio in 1834. Having received the doctorate, he began the practice of medicine near Ridgeville, in his native county, in which practice he continued, with the exception of a few months, until the day of his death, which occurred on the morning of April 7, 1878, at which date he was nearly sixty-eight years of age. When twenty-eight years of age, Dr. Keever was married to Miss Juliet D. Janney, of Louden county, Virginia. They became the parents of ten children. Mrs. Keever, six daughters and one son survive him.

For thirteen years Dr. Keever had a professional associate in the person of Dr. Wm. H. Stokes, who is now a member of the State Senate. From 1865 to 1878, he was in partnership with Dr. J. B. Hough, who is now a professor in the Miami Medical College of Cincinnati. Dr. Keever was one of the first physicians in Southern Ohio, and, though burdened with an unusual physique, he was remarkably active in his attention to professional duty. For *forty-four years* he was the honored and trusted attendant upon a very large constituency. He was a member of the Warren County Medical Society, and became a member of the Ohio State Society in 1850.

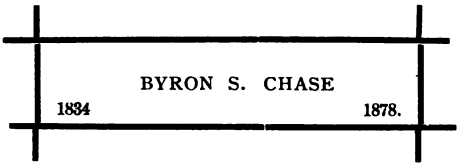
"He rests from his labors."



Dr. Little was born in Delaware, Ohio, December 7, 1825. He entered the preparatory department at Kenyon College in 1840, and took the degree of A. B. at that College in 1845. He studied medicine in the office of Drs. James & Case, in the city of Columbus, Ohio, and attended his first course of lectures at Transylvania University, Louisville, Kentucky. In 1848, he took the degree of M. D. at the University of Pennsylvania, and began practice in the city of Sandusky. After a few months he removed to Columbus, and formed a partnership with Dr. Case of that city. In 1865, he removed to Delaware, in

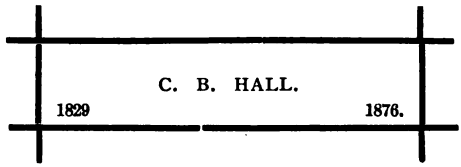
which place he resided until his death, which took place ou the 13th of January, 1877. His disease was acute catarrhal phthisis. He was married in September, 1850, to Miss Caroline M., daughter ot the late Judge Williams, of Delaware. Four children survive him—one son and three daughters. Two little daughters had gone before him to the spirit land. Dr. Little's sickness began in June, 1876, but was so mild as not to alarm his friends, but with the keen eye of a physician, he saw the end from the beginning, and in conformity to his diagnosis, he gradually became worse. It was a hard struggle to give up life. Friends and family held out great inducements to live, but as strength grew weaker, and his hope in Christ grew stronger, he became fully resigned and cheerful.

From the action taken by the physicians of the city of Delaware, we are fully assured that his life was a success as a physician, and that he was held in the highest esteem by his professional brethren. He was a close student, amiable in gentleness, kind in disposition, reliable in friendship, benevolent in character and a judicious counsellor. He has gone to reap his reward.



Was born at Jamaica, Windham county, Vermont, January 8, 1834. He received his academic education at Chester Academy, and began the study of medicine in 1857, with Drs. Anderson & Woodman, at Paw-Paw, Michigan, and finished his pupilage with his uncle, Dr. E. W. Howard, at Akron, Ohio, and graduated in 1860, with high honors, at the University of Michigan. Soon after, he began the practice of medicine in Akron with his preceptor, Dr. Howard, and continued until the fall of 1861, when he received the appointment of Assistant Surgeon 16th Regiment O. V. I., and upon the organization of colored troops, he was made surgeon of a regiment of colored troops and continued during the war. After being honorably discharged, he returned to Akron and resumed

active practice, and continued there until the time of his death. He stood in the front rank with his professional brethren, and by his superior social qualities and high professional attainments, was greatly admired by all who knew him. He was married in 1863 to Miss Henrietta Sabin, of Akron, by whom he had four children—three sons and a daughter. He died February 23, 1878, of double pneumonia, after an illness of *four days*. He was a member of the Congregational Church, and a worker in the Young Men's Christian Association. He was very active as a *medical worker*, and held a membership in the Summit County Medical Society, the North-Western Medical Association, the Ohio State Medical Society, and also the American Medical Association.



Died on the 17th of February, 1876, at Miller's Point, Lawrence county, Ohio, in the forty-ninth year of his age. He was born in Chester county, New Hampshire, March 24, 1829, and came with his parents to Ohio when five years old. He received an academic education in Burlington, Ohio, and studied medicine with his brother. He attended one course of lectures at Cleveland, and afterwards graduated at Columbus, Ohio, in 1852. After completing his college course, he opened an office, and began practice at Keystone Furnace, Gallia county, and afterwards removed to Millersport, where he continued and exercised his profession until his death. At Millersport he acquired in a very short time a large practice, and was eminently successful. The studious habits acquired while in his pupilage served him well in after life, for he remained an active student and practitioner of his chosen profession until forced by disease in his own person to desist. He has left a name endeared to the community among whom he lived and practiced that will not soon be forgotten. He was an affectionate husband, a kind father, and a worthy and exemplary citizen.

LIST OF DECEASED MEMBERS

—OF THE—

OHIO STATE MEDICAL SOCIETY,

—WITH—

DATE OF ADMISSION AND DATE OF DEATH.

LIST OF DECEASED MEMBERS

OF THE

OHIO STATE MEDICAL SOCIETY,

With Date of Admission and Date of Death.

NAME.	P. O. ADDRESS.	ADMITTED.	DIED.
Ackley, H. A.	Cleveland.	1850	
Allen, Peter	Kinsman	1850	
Amos C. E	Cleveland	1852	
Andrews, F. M	Dayton	1862	*Army.*
Angel, E.	Akron	1852	
Arnold, Emil	Ironton	1873	
Baily, J. S.	Freeport	1873	1875
Baggs, James	Ontario	1866	1868
Baker, A. H.	Cincinnati	1846	1865
Baker, Timothy H	Wooster	1851	1871
Ballard, H. D	Findlay		1871
Blackman, G. C	Cincinnati	1860	1871
Boalse, A. N	Lockburn	1848	
Bœrstler, G. W	Lancaster.	1846	1871
Bonner, Stephen	Cincinnati	1847	1876
Boyle, C. E	Columbus	1851	1870
Bracken, W. C.	Jersey	1868	1872
Brennan, Thomas	Dayton	1855	1858
Bridge, W. W	Marion.	1859	1864
Brown, B. S	Bellefontaine.	1855	1873
Brown, E. T.	Logan	1849	
Bronson, James	Newton Falls.	1852	
Buckner, Philip J.	Cincinnati	1850	
Buckner, William	Hamilton.	1853	

NAME.	P. O. ADDRESS.	ADMITTED.	DIED.
Butterfield, John	Columbus	1846	1847
Caldwell, Joseph	Huron	1857	1866
Carey, Abel	Salem	1852	1872
Carroll, Thomas	Cincinnati	1854	1871
Chamberlain, E. K	Cincinnati	1847	1847
Chase, B. S.	Akron	1870	1878
Conner, P. S.	Cincinnati	1853	1854
Cook, Charles C	Youngstown	1862	1863
Cook, F.	Atwater	1853	1857
Cox, D. A.	New Paris	1846	
Crook, James M.	Dayton	1853	
Crume, P. M	Eaton	1847	1869
Danna, M.		1849	
Dawson, John	Columbus	1851	1866
Dean, G. A	McComb	1874	1875
Dean, W. F.	Milan	1857	*Army.*
Delemater, John.	Cleveland	1850	1867
Dodge, I. S.	Cincinnati	1854	1872
Doherty, G. A.	Cincinnati	1868	1873
Dolman, Wm	Cleveland	1852	
Ells, G. E.	Lithopolis	1849	1867
Farrington, S. H.			1875
Foote, H. E.	Cincinnati	1854	1871
Fries, George	Cincinnati	1862	1866
Fyffe, E. P	Urbana	1851	1867
Gabriel, R. W.	Dublin	1854	1860
Gailey, J. D.	Marion	1851	
Gans, S.	Cincinnati	1861	1864
Gard, B. F	Columbus	1847	1849
Gatson, E.	Morristown	1849	1868
Gille, L. C. C	Westville.	1853	
Green, M.	Cambridge.	1855	1856
Griswold, Wayne.	Circleville	1866	
Haggott, J. P	Eaton.	1861	1862
Haines, Job.	Dayton	1853	1860
Haines, V.	Cambridge.	1853	1865
Hall, W. C	Fayetteville.	1859	1872
Hall, C. B.	KeystoneFurn'ce		1876

NAME.	P. O. ADDRESS.	ADMITTED.	DIED.
Helmick, G. W.	Harrisburg.	1848	
Henderson, W.	Delaware	1848	1866
Hopkins, Rudd C	Newburg.	1852	*Army.*
Hornbeck, L.	New Carlisle	1849	1865
Howard, R. L.	Columbus	1846	
Hughes, J. W	Berlin Centre.	1858	1869
Hurxthall, F. T	Massillon.	1849	
Johnson, Wm	Delaware.	1850	
Jones, A. B	Portsmouth.	1868	1876
Judkins, J. P.	Cincinnati	1846	1867
Judkins, Wm	Cincinnati	1847	1861
Kable, W. R.	Bellebrook.	1846	1859
Keever, M. H.	Ridgeville	1850	1878
Kennedy, J. L.	Batavia	1864	1866
Kineman, J. W	Ashland.	1870	1874
Kreider, M. Z.	Lancaster	1846	1852
Kyle, J. G.	Xenia.	1856	1870
Lathrop, H	Columbus	1846	1849
Lawson, L. M.	Cincinnati	1853	1864
Little, J. A.	Delaware		1877
Marshall, N. T.	Cincinnati	1854	
Martin, Joshua.	Xenia.	1853	1857
Matson, A. F	Logansville.	1857	1867
McBride, Alex.		1865	1876
McCracken, W. A	Springfield.	1867	
McGuire, W. B	Waynesville	1848	
McMeans, R. R	Sandusky.	1854	1862
McNeal, F. D	Canal Dover	1854	
McDonell, W. J.	Portsmouth		1878
Mendenhall, G.	Cincinnati	1854	1874
Merriman, A	Madison.	1853	1867
Metz, Abram	Massillon.	1852	1875
Millikin, Samuel.	Hamilton.	1853	
Mitchell, G. F	Mansfield.	1850	1869
Mitchell, M.	Mansfield.	1863	1864
Moore, Jonas	Marietta.	1852	1856
Morehead, W	Zanesville	1855	1861
Mount, William	Cumminsville.	1853	1866

NAME.	P. O. ADDRESS.	ADMITTED.	DIED.
Mussey, R. D.	Cincinnati	1847	1866
Naw, J. H.	Carroll	1873	1875
Norton, J. C.	Marion	1848	
Oliver, J. Q.	Cincinnati	1854	
Pease, L. T.	Williamsburg	1863	1874
Potter, J. F.	Cincinnati	1854	1868
Purple, J. G.	Brooklyn	1853	
Putnam, J.	Gahn	1873	1873
Reid, J. T.	Fairfield	1864	1864
Rigdon, L.	Hamilton	1853	1865
Risinger, J. F.	Galion	1849	1866
Rives, L. C.	Cincinnati	1850	1870
Robertson, James	Perrysburg	1853	1854
Rodman, Thomas S.	Cleveland	1852	
Russell, I. W.	Mount Vernon	1870	1876
Sachse, G. J.	Columbus	1846	1860
Sanders, Moses	Norwalk	1853	
Shædford, R. J.	Midway	1853	1868
Sharpe, E. C.	Williamsburg	1859	1868
Sheppard, W. A.	New Vienna	1856	1872
Shotwell, John T.	Cincinnati	1850	1850
Silver, D. H.	Columbus	1851	1864
Skinner, J. S.	Columbus	1849	
Smith, A. C.	Medina	1852	1861
Smith, Edmund		1850	1850
Smith, Harry	Mount Vernon	1869	1874
Smith, J. A.	Piqua	1853	1858
Smith, S. M.	Columbus	1846	1874
Smith, James.	Clavington	1876	1877
Spillman, Henry	Medina	1855	1862
Stanton, Benjamin	Salem	1852	1861
Story, R.	Cleveland	1852	1866
Taggart, T. M.	Dalton	1857	1867
Taliaferro, Wm. T.	Cincinnati	1854	1871
Tappan, Benjamin	Steubenville	1852	
Thompson, J. W.	Columbus	1860	1862
Thompson, M.	Mount Vernon	1850	1867
Thompson, Robert	Columbus	1846	1865
Thomas, K. G.	Alliance	1858	1869

NAME.	P. O. ADDRESS.	ADMITTED.	DIED.
Thorn, E.	Yellow Springs .	1867	1876
Tilden, Daniel	Sandusky . . .	1856	1870
Tilden, D. J.	Toledo	1850	
Tullis, J. W.	Troy	1851	
Turney, S. D.	Circleville		1878
Van Pearse, James . . .	Columbus . . .	1850	
Van Tuyl, D. R	South Bend . .	1850	
Van Tuyl, H.	Dayton	1853	
Wallace, R.	Lewisburg . .	1861	1865
Weatherby, A. S. . . .	Cardington . .	1865	1870
White, John		1848	
Wigton, A. E.	Delaware . . .	1861	1862
Woodward, Chas. . . .	Cincinnati . . .	1857	1874
Woody, Robert	Eaton	1863	1872

LIST OF MEMBERS

—OF THE—

OHIO STATE MEDICAL SOCIETY.

—WITH—

POST OFFICE ADDRESS AND DATE OF ADMISSION.

LIST OF MEMBERS

OF THE

OHIO STATE MEDICAL SOCIETY.

With Post Office Address and Date of Admission.

NAME.	P. O. ADDRESS.	ADMITTED.
Adams, D. P.	Columbus	1875
Adams, John M.	Lebanon	1874
Agard, Aurelius H.	Sandusky	1853
Alcorn, A. W.	Ravenna	1870
Allen, D. B.	West Liberty	1865
Allen, Dudley	Oberlin	1870
Amick, M. L.	Cincinnati	1874
Andrus, A.	Westerville	1872
Asbury, T. B.	Worthington	1878
Ayres, J. H.	Urbana	1876
Ayers, S. C.	Cincinnati	1877
Baker, Norman	Lucas	1858
Baldwin, J. F.	Columbus	1875
Ballinger, Wm. J.	Plain City	1864
Banning, J. C.	Round Head	1876
Barker, W. M.	Attica	1876
Bartholow, Roberts	Cincinnati	1869
Bartlett, E. P.	Genoa	1874
Battles, W. S.	Shreve	1858
Beach, A. J.	Belleville	1863
Beach, J. N.	West Jefferson	1859
Beach, T. D.	Alton	1874
Beagrand, Pierre	Freemont	1853
Beardsley, C. E.	Ottawa	1869
Belden, A. C.	Akron	1878

NAME.	P. O. ADDRESS.	ADMITTED.
Belding, A.	Ravenna	1853
Bell, A. W.	Bloomsville	1877
Bell, A. E.	Zanesville	1855
Belts, Mrs. Helen L.	Youngstown	1875
Bennett, P. C.	Garrettsville	1870
Bennitt, John	Cleveland	1869
Berger, S. H.	Toledo	1874
Berlin, E.	Wapakoneta	1868
Besse, H.	Delaware	1868
Bevington, J. S.	Berlin	1878
Bigelow, Asa	Toledo	1874
Bigney, P. M.	Cincinnati	1871
Bing, J. P.	Portsmouth	1851
Bington, Joseph	Williamstown, Va	1876
Bishop, S. P.	Delta	1870
Blake, H. C.	Lockbourne	1878
Blake, W. H.	Shadeville	1878
Bland, Jerome	Poplar	1876
Blesch, P. E.	Columbus	1869
Blymeyer, A.	Delaware	1868
Bœrstler, G. W.	Lancaster	1870
Bond, J. W.	Toledo	1874
Bowen, A. H.	Waterford.	1878
Boynton, A.	Milford Centre	1878
Bramble, D. D.	Cincinnati	1870
Brainard, A. C.	Orangeville	1870
Brainerd, H. C.	Cleveland	1870
Bricker, W. R.	Shelby	1848
Brinkerhoof, D. H.	Fremont	1853
Brison, H. C.	Millerspoint	1877
Brockett, A. J.	Bristolville	1874
Brown, S. H.	Dennison	1876
Brook, G. W.	Ellsworth	1858
Brooks, Mrs. S.	Akron	1875
Brundage, A. H.	Xenia	1878
Brush, E. C.	Columbus	1878
Bryant, W. G.	Springfield	1871
Bulen, Joseph	Grove City	1856

NAME.	P. O. ADDRESS.	ADMITTED.
Buckner, J. H	Cincinnati	1863
Buckingham, E. V. B.	Centerton	1874
Bunce, Wm.	Oberlin	1864
Burr, J. N.	Mount Vernon	1853
Butler, Geo. O.	Cleveland	1870
Butler, G. W	Columbus	1869
Cake, W. M.	W. Independence	1875
Caldwell, W. W	Hamilton	1874
Campbell, J	Dennison	1876
Campbell, W. H	Vanceburg, Ky.	1871
Carmichael, W. A	Loveland	1871
Carson, W. B	McComb	1874
Carson, Wm.	Cincinnati	1871
Carrick, A. L	Cincinnati	1871
Casgrove, Thomas	Sylvania	1875
Cassat, M	Cincinnati	1870
Chamberlin, D. H	Toledo	1877
Chamberlain, D. P.	Toledo	1874
Chapman, W. C	Toledo	1875
Chase, B. S	Akron	1870
Chase, James L	Toledo	1874
Cherry, Wm.	Toledo	1874
Chisholm, J. W	Mt. Perry	1873
Clark, Henry P	Ashland	1862
Clark, John H	Mechanicsburg	1869
Clark, M. S	Youngstown	1865
Coldham, Jas.	Toledo	1874
Coleman, N. R.	Columbus	1875
Conklin, H. S	Sidney	1849
Conklin, W. J.	Dayton	1868
Conner, P. S.	Cincinnati	1868
Constant, W. S.	Delaware	1866
Cooney, H	Bryan	1875
Corey, John M.	Fremont	1874
Corson, John	Middletown	1866
Corwell, H. G.	Youngstown	1874
Cotton, J. D.	Marietta	1852
Coulson, E. G.	Pennville	1875

NAME.	P. O. ADDRESS.	ADMITTED.
Courtwright, A. P	Cincinnati	1871
Courtwright, G. S	Lithopolis	1867
Cox, J. M.	South Salem	1877
Crafts, John M.	Mantua.	1874
Craig, J. W.	Mansfield.	1874
Culbertson, Howard	Zanesville.	1855
Culver, B. F.	Belpre.	1874
Curry, J. H.	Toledo	1876
Cushing, H. K.	Cleveland.	1857
Cuykendall, M. C	Bucyrus	1874
Dandridge, A. S	Cincinnati	1854
Dandridge, N. P.	Cincinnati	1871
Darwin, Henry W	Gettysburg.	1859
Davis, B. W	Marion.	1878
Davis, John	Dayton	1853
Davis, John	Cincinnati.	1854
Davis, Wm. B.	Cincinnati.	1865
Davy, R. B	Cincinnati.	1875
Dawson, W. W	Cincinnati	1853
Dean, Geo. A.	McComb.	1874
Denig, R. M	Columbus.	1851
Denman, M. N.	West Unity.	1874
Dickson, M. M.	Johnstown	1877
Donahoe, H. J	Sandusky.	1854
Dorland, W. L.	Galion.	1878
Douglass, W. W.	Toledo.	1874
Downs, Samuel	Waterville	1876
Drake, I. L	Lebanon.	1859
Drury, Wm. H.	Columbus.	1859
Dumm, S. C.	Constantia	1877
Duncan, James A	Toledo.	1874
Dunlap, Alexander	Springfield	1854
Dunlap, A. S	Dayton	1868
Dunlap, C. W.	Springfield	1869
Ebright, L. S	Wadsworth	1870
Eckman, Hirman.	Tuscarawas	1869
Edwards, J. D.	Xenia	1867
Ellsberry. W. W.	Georgetown.	1874

NAME.	P. O. ADDRESS.	ADMITTED.
Erwin, R. W.	Bay City, Mich..	1872
Estep, William	Lloydsville . . .	1852
Everhard, N. S.	Wadsworth . .	1870
Ewing, James	Hebron	1875
Falconer, Cyrus	Hamilton . . .	1854
Farrell, T. J.	Columbus . . .	1873
Fenneberg, Gustavus . .	Toledo	1874
Ferrell, C. B.	Columbus . . .	1878
Finch, C. M.	Portsmouth . .	1869
Firestone, J. L.	Salem	1870
Firestone, L.	Columbus . . .	1852
Firmin, F. W.	Findlay	1874
Fisher, A. W.	Toledo	1875
Fisher, P. Q.	Nashport . . .	1873
Fisher, W. S.	Bridgeport . . .	1876
Follett, Alfred	Granville . . .	1864
Forbes, S. F.	Toledo	1856
Ford, J. B.	Norwalk	1876
Foster, Nathaniel	Cincinnati . . .	1854
Franklin, G. S.	Chillicothe . . .	1876
Frizzell, W. A.	Freestone . . .	1872
Fuller, A. B.	Loudonville . .	1868
Fuller, S. W.	Bellefontaine . .	1853
Gabriel, J. F.	Piqua	1856
Galbraith, E. J.	Frankfort . . .	1876
Galer, Frank. M.	De Graff	1874
Gardner, G. W.	Harrisburg . . .	1873
Gawne, A. J.	Cleveland . . .	1870
Gay, N.	Columbus . . .	1848
Gerwe, F. A. J.	Cincinnati . . .	1854
Gibson, Richard McD. . .	Tiffin	1871
Gilchrist, R. S.	De Graff	1856
Gilliam, D. T.	Columbus . . .	1873
Glenn, Mrs. G. C	Akron	1875
Goble, P.	Worthington . .	1849
Gonsaulis, C.	Sparta	1863
Goodlove, Wm.	Monterey . . .	1874
Goodson, J. W.	Bellevue	1874

NAME.	P. O. ADDRESS.	ADMITTED.
Gordon, T. W.	Georgetown	1849
Graefe, Phillip	Sandusky	1875
Graefe, Wm	Sandusky City	1874
Granger, B. D	Russell Station	1878
Gray, S. S.	Piqua	1867
Greenamyer, P. S	Smithville	1875
Green, H. S.	Cardington	1878
Green, J. H	Troy	1871
Green, J. W.	Fairfield	1853
Grissell, E	Salem	1876
Guittard, F.	Coshocton.	1875
Gundry, Richard	Columbus	1856
Hadlock, J. W.	Cincinnati.	1871
Hague, J. H.	Nashville	1874
Hale, R. W.	Fostoria	1875
Halderman, D	Columbus.	1869
Hall, C	Burlington	1872
Hall, C. B.	Miller's	1872
Hamilton, J. W	Columbus.	1849
Hammell, M. J	Circleville.	1878
Hard, E. G.	Medina	1875
Harmon, Julian	Warren	1857
Harrison, Eugene B	Napoleon.	1869
Hart, B. F	Marietta.	1854
Hart, C. A	Marietta.	1877
Hartman, S. Duff.	Tippecanoe City.	1874
Hathaway, Calvin	Edgerton.	1874
Hathaway, Harrison	Weaver's Corners	1874
Hazzard, J. S. R.	Springfield	1867
Hedges, W. B.	Beverly.	1878
Heighway, A. E.	Cincinnati	1870
Helbish, F. S.	Green Springs.	1876
Helmick, G. W.	Harrisburg	1878
Helmick, S. C.	Commercial Point	1873
Helmick, J.	Harrisburg	1878
Henderson, D. W.	Marysville.	1856
Henderson, J. P.	Newville	1850
Henderson, R. A.	Upper Sandusky.	1865

NAME.	P. O. ADDRESS.	ADMITTED.
Hendrickson, Hugh . . .	Lewis Centre . .	1868
Herrick, H. J.	Cleveland. . . .	1868
Herrick, L. C.	Woodstock . . .	1871
Hewetson, A. H.	St. Clairsville . .	1878
Heyl, E.	Columbus. . . .	1878
Higgins, C. W.	Big Plain . . .	1869
Hildreth, C. C.	Zanesville . . .	1853
Hill, G. W.	Ashland	1873
Hill, N. S.	Neville	1866
Hill, H.	West Alexandria	1867
Hiner, S. B.	Lima	1874
Hines, Isaac N.	Cleveland . . .	1874
Hirter, Carl	Sandusky . . .	1875
Hixson, C. C.	Hillsboro . . .	1877
Hoege, George L.	Fostoria	1874
Hohly, Frederick	Toledo	1874
Hoff, J. W.	Pomeroy	1872
Holdt, George	Cincinnati . . .	1871
Holliday, B. W.	Cleveland . . .	1875
Hoover, T. C.	Columbus . . .	1873
Hough, J. B.	Ridgeville . . .	1869
Hough, W. S.	Cuyahoga Falls .	1875
Hovey, A. B.	Tiffin	1875
Howard, E. W.	Akron	1852
Howard, H. C.	Akron	1877
Hubbard, J. C.	Ashtabula . . .	1856
Huestis, Isaac	Chester Hill . .	1869
Hueston, R. C.	Oxford	1868
Huggins, R. D.	West Alexandria	1871
Hughes, M. A.	Sandusky . . .	1877
Hunt, A. H.	Blackleyville . .	1868
Hunter, F. S.	Ashland	1878
Hurd, A.	Findlay	1870
Hyatt, E. H.	Delaware . . .	1862
Hyde, Wm.	Wauseon . . .	1871
Isham, A. B.	Walnut Hills . .	1871
Jackson, E. H.	Lancaster . . .	1878
Jacoby, F.	Columbus . . .	1873

NAME.	P. O. ADDRESS.	ADMITTED.
Jennings, E.	Dayton	1867
Jennings, J. D.	Sonora	1869
Jewett, W. H.	West Canaan	1869
Jewett, H. S.	Dayton	1871
Jobes, J. A.	German	1870
Johnson, O.	Worthington	1878
Jones, T.	London	1878
Jones, T. W.	Columbus	1847
Jones, L. M.	West Liberty	1869
Jones, R. E.	Gomer	1863
Jones, W. W.	Toledo	1849
Jones, J. D.	Newburg	1870
Jones, P. E.	Wauseon	1874
Judkins, C. P.	Cincinnati	1878
Junkens, M. W.	Bellaire	1859
Kay, Isaac	Springfield	1853
Kelley, H. R.	Galian	1868
Kearney, T. H.	Cincinnati	1871
Kennedy, J. C.	Batavia	1854
Kemp, J. D.	Dayton	1868
Kemper, A. C.	Cincinnati	1871
Kendig, E. V.	Haynesville	1874
Keyt, A. T.	Walnut Hills	1850
Kinsman, D. N.	Columbus	1864
Kingham, Joseph.	Port Clinton	1875
Kitchen, B. F.	Clay Post Office	1872
Kitchen, H. W.	Cleveland	1874
Kirkley, C. A.	Toledo	1874
Knowlton, A. P.	Olmstead Falls	1870
Knox, C. E.	Bellaire	1875
Kincaid, W. P.	New Richmond	1854
Kroesen, J. C.	Columbus	1878
Landon, C. P.	Westerville	1851
Landis, H. G.	Columbus	1878
Lang, E. R.	Marietta	1871
Lamme, W. H.	Xenia	1853
Larimore, James	Newark	1875
Larimore, F. C.	Mt. Vernon	1871

NAME.	P. O. ADDRESS.	ADMITTED.
Lawless, J. T.	Toledo	1874
Lee, E. B.	Garrettsville	1870
Leonard, B. B.	West Liberty	1854
Leslie, J. M.	Frankfort	1878
Lewis, Edward C.	Canal Dover	1870
Lewis, W. C.	Rushville	1869
Linskey, C. H.	Put-in-Bay	1876
Lisle, J. M.	Pataskala	1878
Loller, W. B.	Uhricksville	1864
Long, J. W.	Bryan	1875
Longfellow, A. J.	Fostoria	1861
Longworth, L. R.	Cincinnati	1875
Loving, S.	Columbus	1858
Lowman, J. H.	Cleveland	1877
Lucky, J. B.	Elmore	1874
Ludington, H.	Cincinnati	1871
Ludlow, J	Cincinnati	1871
Lyman, C. N	Wadsworth	1852
Mack, John	Shelby	1853
Mahlman, H. A.	Columbus	1869
Mann, H. L.	Wapakoneta	1875
Martin, George	Huron	1877
Matchett, W. H.	Greenville	1862
Mills, J. T	Jersey	1878
McCann, ——	Napoleon	1875
McCarty, Oliver	Polk	1858
McCasky, H.	Felicity	1868
McClellan, R. M	Xenia	1875
McClure, James	Marietta	1866
McCollum, E. J	Tiffin	1871
McConnelly, F. C	Vermillion	1875
McCracken, J. W.	Portage	1877
McCurdy, John	Youngstown	1870
McCullough, J. G.	Bealsville	1868
McCullough, A. M. F.	Bealsville	1874
McDowell, W. J.	Portsmouth	1872
McEbright, Thomas G.	Akron	1866
McElwe, S	Newcastle	1866

NAME.	P. O. ADDRESS.	ADMITTED.
McFarland, J. A.	Tiffin	1850
McGraw, Aaron	Burton	1869
McGrew, Henry	Montgomery	1878
McGuire, D. J.	Norwalk	1870
McKechnie, ——	Wilmington	1876
McLaughlin, A. C.	Tremont City	1852
McLaughlin, R.	Butler	1869
McMann, E. W.	Napoleon	1875
McMillen, J. W.	Mt. Vernon	1878
McNutt, A. C	Bucyrus	1878
McNutt, E. A.	Huron	1877
Mead, M. L.	Cleveland	1875
Merrell, A. E.	Vermillion	1876
Metcalf, C. T.	Warren	1870
Metzler, A. S.	Buena Vista	1874
Miles, A. J.	Cincinnati	1869
Miller, A. C.	Orrville	1858
Miller, C. A.	Cincinnati	1871
Minor, T. C.	Cincinnati	1873
Mitchell, George	Mansfield	1868
Moore, A. C.	Amelia	1869
Moore, Eugene L.	Moscow	1868
Moore, G.	Kinsman	1878
Moore, James	Ironton	1872
Moore, William	New Lisbon	1865
Morris, Jonathan	Ironton	1853
Morse, D. A.	Dayton	1868
Mory, J. J	St. Henry	1871
Mosgrove, W. A.	Urbana	1875
Mounts, J. L	Morrow	1860
Mouser, J. A	LaRue	1870
Mullen, T. J	New Richmond	1855
Murbach, A. J	Archibald	1874
Murphy, J. A	Cincinnati	1872
Murray, L. S	Medina	1870
Muscroft, C. S.	Cincinnati	1854
Mussey, W. H	Cincinnati	1854
Myers, Benjamin	Ashland	1874

NAME.	P. O. ADDRESS.	ADMITTED.
Nash, W. H. H.	Quaker Bottoms	1874
Nau, J. G.	Carroll	1878
Neal, T. L.	Dayton	1863
Neil, Alexander	Columbus	1868
Nelson, H. W.	Steubenville	1878
Nolan, J. G.	Toledo	1874
Norman, Frank	Columbus	1873
Nourse, J. D.	Lancaster	1873
Nunemaker, H. B.	Columbus	1875
Orr, G. B.	Cincinnati	1871
Osborn, A. L.	Peru	1875
Otis, W. D.	Pataskala	1878
Owsley, J. B.	Jacksonburg	1871
Paige, W. F.	Johnstown	1864
Paige, W. N.	Johnstown	1878
Palmer, C. D.	Cincinnati	1871
Pape, Leopold	Sandusky	1875
Patterson, A. V.	Mansfield	1861
Patterson, W S.	New Lexington	1874
Paul T. E.	Ottawa	1877
Pearce, Enoch, Jr	Steubenville	1859
Pearce, H. C.	Urbana	1867
Pearce, L. C.	Cable	1869
Peck, W. V.	New Richmond	1872
Philips, W. H.	Kenton	1866
Pickard, P.	Mt. Vernon	1878
Pixley, M. S.	Portsmouth	1873
Pixley Sumner	Cleveland	1870
Pollock, Calvin	Donnelsville	1873
Pomerene, P. P.	Berlin	1870
Pomerine, Joel	Millersburg	1858
Pomeroy, O.	Chardon	1869
Pooley, J. H.	Columbus	1876
Potter, J. B.	Canal Winchester	1847
Pratt, E. B.	Mt. Sterling	1869
Preston, J. C.	Brunswick	1857
Price, Joseph	Randolph	1852
Priest, C. S.	Newark	1878

NAME.	P. O. ADDRESS.	ADMITTED.
Priest, Jonathan	Toledo	1874
Primrose, J. P.	Nelsonville	1872
Pullen, G. W.	Logan	1864
Quinn, J. J.	Cincinnati	1875
Randall, R.	Bath	1870
Ranney, S. W.	Hope.	1878
Reamy, T. A.	Cincinnati.	1855
Reed, A. B.	Brooklyn..	1870
Reed, A. N.	Norwalk	1870
Reed, C. H.	Toledo	1873
Reed, J. T.	Massillon	1875
Reed, E. J.	Leipsic	1878
Reed, R. C. S.	Jones' Station	1867
Reed, Wm.	Iberia	1865
Reeve, J. C.	Dayton	1861
Reid, J. L.	Van Wert.	1874
Rice, J. B.	Fremont	1868
Ridenour, A. W.	Massillon	1875
Ridenour, W. T.	Toledo	1870
Ridgway, N. B.	Galion	1878
Riggs, J. U.	Bryan	1873
Robertson, Charles	McConnelsville	1849
Robinson, J. D.	Wooster	1856
Rogers, J. G.	New Richmond	1853
Root, H. A.	Toledo.	1874
Rosenfeldt, A.	Cincinnati	1871
Russell, J. W.	Mt. Vernon	1848
Sadler, J.	Columbus	1878
Salisbury, J. N.	Russellville	1872
Sauer, Mrs. P. B.	Napoleon.	1875
Saylor, Wm..	Gratis	1871
Scarf, W. D.	Bellefontaine	1855
Schnetzler, H. M.	Toledo	1874
Schueller, J. B.	Columbus	1869
Schwab, Lewis	Portsmouth	1872
Scott, A. J.	Loudonville	1870
Scott, W. A.	Swanton	1878
Scott, W. J.	Cleveland	1855

NAME.	P. O. ADDRESS.	ADMITTED.
Scott, Xenophon C. . . .	Cleveland . . .	1874
Scovill, S. S.	Lebanon	1859
Seaton, A. M.	Cross Roads . .	1869
Seely, W. W.	Cincinnati . . .	1871
Sellers, A.	Lebanon	1867
Senour, J. G.	Troy	1878
Sensaman, H.	Tremont	1871
Severance, R. A.	Bellevue	1874
Shackleton, E. L.	Auburn, California	1871
Sharp, Joseph	Sugar Grove . .	1878
Shepherd, W. E. W. . . .	Nelsonville . . .	1873
Shepherd, W. W.	Hillsboro	1871
Shoemaker, J. M.	Napoleon	1869
Sidwell, N. H.	Wilmington . .	1871
Silver, D. R.	Sidney	1870
Sinnett, E.	Granville. . . .	1850
Slocum, Charles	Defiance	1874
Smith, C. T.	Middleport . . .	1873
Smith, D. B.	Cleveland. . . .	1870
Smith, H. L.	Bloomingburgh .	1878
Smith, James	Clarington . . .	1876
Smith, S. D.	Lockington . . .	1874
Smith, W. K.	Deersville . . .	1875
Snodgrass, J.	Kenton	1878
Snyder, D. J.	Scio	1850
Southard, J. M.	Marysville . . .	1860
Sparrow, T. R.	Columbus . . .	1873
Speer, A. T.	Newark	1878
Spees, S. J.	Hillsboro	1863
Sprague, James	London	1866
Stanley, E.	Sandusky	1870
Stark, W.	Cincinnati . . .	1871
Stansell, J. A.	Forest	1866
Stanton, Byron.	Cincinnati. . . .	1871
Steeley, E. E.	Anna.	1877
Steeley, H. G.	Anna	1869
Stein, Geo. T.	Columbus. . . .	1873

NAME.	P. O. ADDRESS.	ADMITTED.
Stephenson, J. H.	Leesville	1860
Stephenson, Y.	Georgetown	1872
Stevens, E. B.	Lebanon	1853
Steward, S. H.	Columbus	1869
Stewart, T. H.	Church Hill	1877
Stillwell, Thos.	Fremont	1857
Stockstill, J. W.	New Carlisle	1867
Stouffer, C. C.	West Salem	1878
Sweney, R. L.	Marion	1859
Sykes, W. H.	Plymouth	1870
Taggart, E. Curtis	Hilliard	1871
Tauber, B.	Cincinnati	1876
Thomas, B. A.	Rushville	1878
Thompson, J. B.	Columbus	1846
Thompson, J. C.	South Bloomfield	1848
Thompson, W. R.	Vandalia	1871
Thorn, E. J.	Yellow Springs	1878
Thorn, S. S.	Toledo.	1873
Thurston, R. C.	Oxford	1868
Tichnor, E. J.	Lebanon	1869
Tipton, T. C.	Williamsport	1878
Tobey, H. A.	Columbus	1878
Tupper, C. E.	Ottawa	1874
Underhill, J. W.	Cincinnati	1874
Underwood, A. H.	London	1869
Underwood, W. J.	Akron	1869
Vail, D. W.	New Haven	1874
Vanatta, E.	Fultonham	1855
Vance, D. M.	Urbana	1876
Vandervort, J. W.	Harveysburg	1864
Vaughters, Thos. G.	Portsmouth	1872
Voorhees, S. R.	Mason	1873
Waddick, J. M.	Toledo	1873
Waddel, Thos.	Toledo	1874
Wade, D. E.	Cincinnati	1854
Wagenhals, P. M.	Columbus	1869
Waggoner, Joseph	Ravenna	1870
Walton, Geo. E.	Cincinnati.	1871

NAME.	P. O. ADDRESS.	ADMITTED.
Wallace, J. H.	Smithville	1870
Wangaman, A. L.	Tiffin.	1877
Ward, C. S.	Warren	1875
Waterman, H. C.	Middleport	1868
Weaver, J. M.	Dayton	1865
Weber, G. C. E.	Cleveland	1857
Webster, E. M.	Kingsview	1876
Weed, F. J.	Cleveland.	1870
Welsh, B. F.	London	1859
Welsh, J. M.	Deersville	1873
Wellons, G. S.	Barnesville	1878
Westbrock, A. E.	Ashley	1872
West, T. J.	Melmore	1875
White, J. H.	Delaware	1866
Whitehead, A. M.	Springfield	1871
Whiting, L. M.	Canton	1870
Whitmar, Joel E.	Mt. Hope	1874
Whittaker, J. T.	Cincinnati.	1871
Wiggins, C. W.	Big Plain	1869
Wilbur, A. M.	West Unity	1874
Wise, S. P.	Millersburg	1875
Wilson, Albert	Sidney	1854
Wilson, D. C.	Ironton	1872
Wilson, J. L.	Greenfield	1871
Wilson, Samuel	Wooster	1854
Willson, W. H.	Greenfield	1865
Willard, G. P.	Tiffin	1875
Williams, A. S.	Fostoria	1852
Williams, E.	Cincinnati.	1856
Williams, T. B.	Delaware	1860
Williams, A. L.	North Lewisburg	1871
Williams, J. L.	Cardington	1878
Wilkins, John A.	Delta	1874
Willis, P. A.	Bellepoint	1868
Wirth, R.	Columbus.	1865
Wolfley, W. J.	Columbus.	1873
Wood, D. B.	Warren	1852
Wood, D. M.	Warren	1875

NAME.	P. O. ADDRESS.	ADMITTED.
Woodbridge, T.	Youngstown . .	1870
Woodruff, L.	Alton	1867
Woods, J. R.	Mendon	1871
Woodward, W. R. . . .	Cincinnati . . .	1871
Wylie, A. N.	Ripley	1866
Wylie, J. L.	Ripley	1872
Yates, Porter	Green Spring . .	1875

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TABLE OF CONTENTS.

	Page.
Address, President's	43
Address of Welcome	33
Amendments, Laid on Table	11
Auxiliary Societies, List of	29
Banquets, no More	16
Benevolent Institutions, Committee on	21
Resolution Concerning	20
Board of Health, Created	19
Buckner, J. H., on Hamilton's Paper	80
on Smith's Paper	159
Report on Ear	18, 83
Chase, B. S., Obituary	195
Committee on Admissions, Report of	21
Executive, Report of	6
on Experts, Appointed	18
Report of	15, 62
Finance, Report of	12, 18
on Medical Societies, Report of	24
on Obituaries, Report of	11, 189
on Ophthalmology, Report of	151
on President's Address, Report of	16
on Progress of Medicine, Report of	11, 163
Publication, Minutes of	2
Report of	8

Page.

Committees, Standing and Special 24, 25, 26

Curette in Uterine Diseases 105

Delegates 23

to American Medical Association 27

to State Societies 28

Ear, Buckner on 83

Experts, Medical Testimony of 43

Extra Copies Ordered 15

Franklin, G. S., Quinine as an Antiseptic 127

Gray, S. S., Report of 7

Hall, C. B., Obituary 196

Hamilton, J. W., Maxillary Tumors 77

Naso-Pharyngeal Fibroids 67

on Reamy's Paper 112

Reports on Tumors 15, 67

on Smith's Paper 158

Herrick, H. J., on Buckner's Paper 93

Inversion of Uterus 115

Iron, Sub-Sulphate of, as a Local Remedy 97

Jones, W. W., on Reed's Paper 146

Judicial Council, Report of 14, 19

Keever, M. H., Obituary 193

Kennedy, J. C., Mental Action, Normal and Abnormal 135

on Reed's Paper 147

Landon, C. P., Address of Welcome 6, 33

Leonard, B. B., Response of 13

Little, John A., Obituary 194

Loving, Starling, Progress of Medicine 163

Page.
Maxillary and Naso-Pharyngeal Tumors 67
McDonell, W. J., Obituary 126
Medicine, Progress of 163
Members, Active, List of 207
Members, Deceased, List of 199
Mental Action, Normal and Abnormal 135
Miami County Medical Society, not recognized 14
Muscroft, C. S., Sub-Sulphate of Iron as a Local Remedy 97
Obituaries, Report on 189
Officers, Election of 12
Ophthalmology, Report on 151
Philips, W. H., Testimony of Medical Experts 43
President, Biography of 31
Progress of Medicine 163
Quinine as an Antiseptic 127
as a Prophylactic in Scarlatina 141
Reamy, T. A., on Buckner's Paper 94
Report on Curette 16, 105
on Loving's Paper 184
No Banquets 16
Resolution, "Which School shall Survive." 17
Reed, C. H., Quinine, a Prophylactic in Scarlatina 141
Ridenour, W. T., on Buckner's Paper 93
Russell, J. W., on Reamy's Paper 111
Scarlatina, Quinine a Prophylactic 141
Scott, W. J., on Buckner's Paper 93
on Reed's Paper 146
Scott, X. C., on Smith's Paper 159
Secretary, Report of 10
Salary of 21